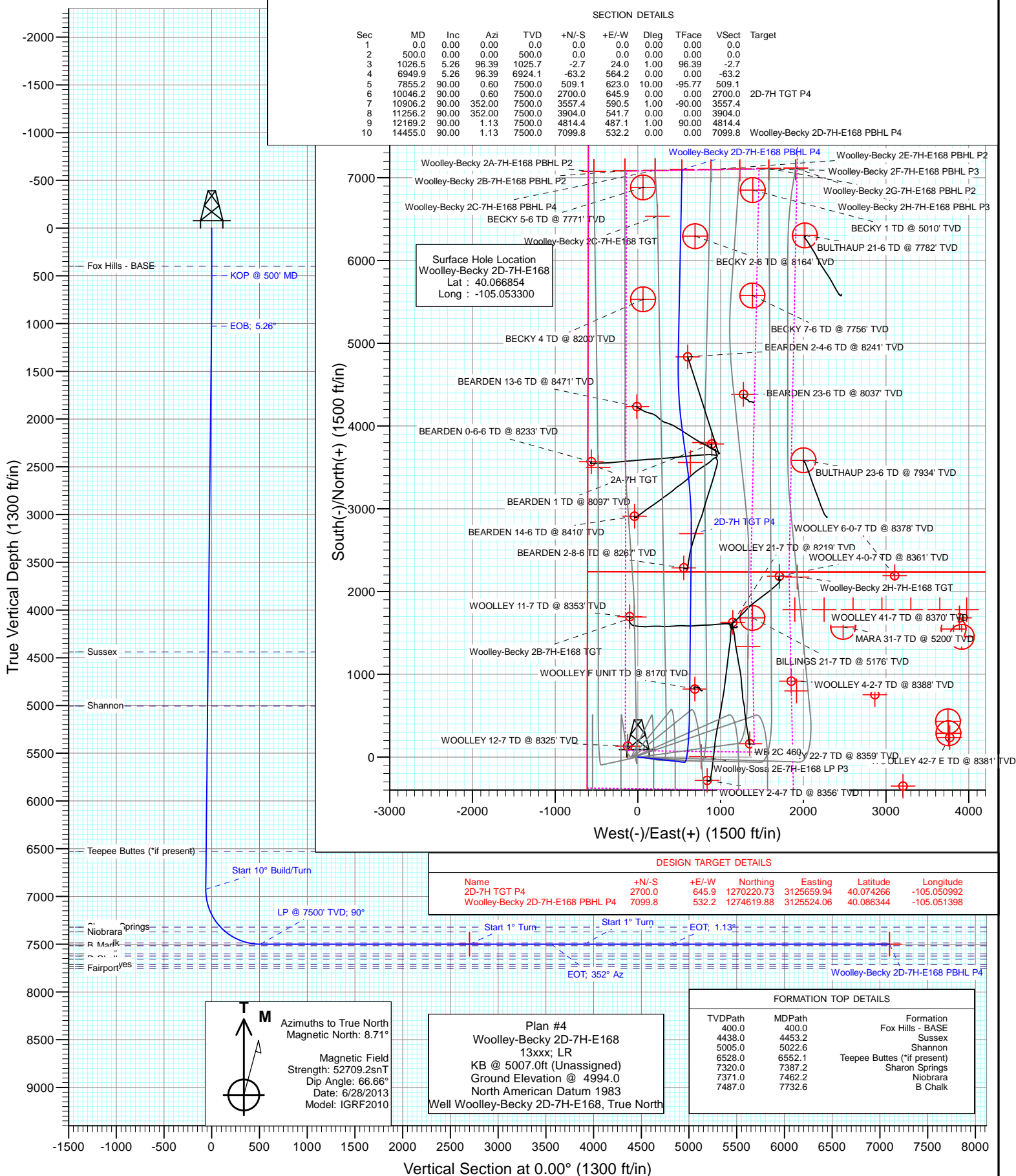




Project: DJ Wattenberg  
Site: S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)  
Well: Woolley-Becky 2D-7H-E168  
Wellbore: Hz  
Design: Plan #4



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #4		

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

Site		S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)			
Site Position:		Northing:	1,265,219.42 ft	Latitude:	40.060530
From:	Lat/Long	Easting:	3,126,139.27 ft	Longitude:	-105.049370
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.29 °

Well	Woolley-Becky 2D-7H-E168					
Well Position	+N/-S	0.0 ft	Northing:	1,267,517.51 ft	Latitude:	40.066854
	+E/-W	0.0 ft	Easting:	3,125,027.65 ft	Longitude:	-105.053300
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,994.0 ft

<b>Wellbore</b>	Hz				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	6/28/2013	8.71	66.66	52,709

<b>Design</b>	Plan #4			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	0.00

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,026.5	5.26	96.39	1,025.7	-2.7	24.0	1.00	1.00	0.00	96.39	
6,949.9	5.26	96.39	6,924.1	-63.2	564.2	0.00	0.00	0.00	0.00	
7,855.2	90.00	0.60	7,500.0	509.1	623.0	10.00	9.36	-10.58	-95.77	
10,046.2	90.00	0.60	7,500.0	2,700.0	645.9	0.00	0.00	0.00	0.00	2D-7H TGT P4
10,906.2	90.00	352.00	7,500.0	3,557.4	590.5	1.00	0.00	-1.00	-90.00	
11,256.2	90.00	352.00	7,500.0	3,904.0	541.7	0.00	0.00	0.00	0.00	
12,169.2	90.00	1.13	7,500.0	4,814.4	487.1	1.00	0.00	1.00	90.00	
14,455.0	90.00	1.13	7,500.0	7,099.8	532.2	0.00	0.00	0.00	0.00	Woolley-Becky 2D-7H

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #4		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	Fox Hills - BASE
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	KOP @ 500' MD
600.0	1.00	96.39	600.0	-0.1	0.9	-0.1	1.00	1.00	
700.0	2.00	96.39	700.0	-0.4	3.5	-0.4	1.00	1.00	
800.0	3.00	96.39	799.9	-0.9	7.8	-0.9	1.00	1.00	
900.0	4.00	96.39	899.7	-1.6	13.9	-1.6	1.00	1.00	
1,000.0	5.00	96.39	999.4	-2.4	21.7	-2.4	1.00	1.00	
1,026.5	5.26	96.39	1,025.7	-2.7	24.0	-2.7	1.00	1.00	EOB; 5.26°
1,100.0	5.26	96.39	1,098.9	-3.4	30.7	-3.4	0.00	0.00	
1,200.0	5.26	96.39	1,198.5	-4.5	39.8	-4.5	0.00	0.00	
1,300.0	5.26	96.39	1,298.1	-5.5	49.0	-5.5	0.00	0.00	
1,400.0	5.26	96.39	1,397.7	-6.5	58.1	-6.5	0.00	0.00	
1,500.0	5.26	96.39	1,497.3	-7.5	67.2	-7.5	0.00	0.00	
1,600.0	5.26	96.39	1,596.8	-8.6	76.3	-8.6	0.00	0.00	
1,700.0	5.26	96.39	1,696.4	-9.6	85.4	-9.6	0.00	0.00	
1,800.0	5.26	96.39	1,796.0	-10.6	94.6	-10.6	0.00	0.00	
1,900.0	5.26	96.39	1,895.6	-11.6	103.7	-11.6	0.00	0.00	
2,000.0	5.26	96.39	1,995.2	-12.6	112.8	-12.6	0.00	0.00	
2,100.0	5.26	96.39	2,094.7	-13.7	121.9	-13.7	0.00	0.00	
2,200.0	5.26	96.39	2,194.3	-14.7	131.0	-14.7	0.00	0.00	
2,300.0	5.26	96.39	2,293.9	-15.7	140.2	-15.7	0.00	0.00	
2,400.0	5.26	96.39	2,393.5	-16.7	149.3	-16.7	0.00	0.00	
2,500.0	5.26	96.39	2,493.0	-17.8	158.4	-17.8	0.00	0.00	
2,600.0	5.26	96.39	2,592.6	-18.8	167.5	-18.8	0.00	0.00	
2,700.0	5.26	96.39	2,692.2	-19.8	176.6	-19.8	0.00	0.00	
2,800.0	5.26	96.39	2,791.8	-20.8	185.7	-20.8	0.00	0.00	
2,900.0	5.26	96.39	2,891.4	-21.8	194.9	-21.8	0.00	0.00	
3,000.0	5.26	96.39	2,990.9	-22.9	204.0	-22.9	0.00	0.00	
3,100.0	5.26	96.39	3,090.5	-23.9	213.1	-23.9	0.00	0.00	
3,200.0	5.26	96.39	3,190.1	-24.9	222.2	-24.9	0.00	0.00	
3,300.0	5.26	96.39	3,289.7	-25.9	231.3	-25.9	0.00	0.00	
3,400.0	5.26	96.39	3,389.2	-26.9	240.5	-26.9	0.00	0.00	
3,500.0	5.26	96.39	3,488.8	-28.0	249.6	-28.0	0.00	0.00	
3,600.0	5.26	96.39	3,588.4	-29.0	258.7	-29.0	0.00	0.00	
3,700.0	5.26	96.39	3,688.0	-30.0	267.8	-30.0	0.00	0.00	
3,800.0	5.26	96.39	3,787.6	-31.0	276.9	-31.0	0.00	0.00	
3,900.0	5.26	96.39	3,887.1	-32.1	286.1	-32.1	0.00	0.00	
4,000.0	5.26	96.39	3,986.7	-33.1	295.2	-33.1	0.00	0.00	
4,100.0	5.26	96.39	4,086.3	-34.1	304.3	-34.1	0.00	0.00	
4,200.0	5.26	96.39	4,185.9	-35.1	313.4	-35.1	0.00	0.00	
4,300.0	5.26	96.39	4,285.4	-36.1	322.5	-36.1	0.00	0.00	
4,400.0	5.26	96.39	4,385.0	-37.2	331.6	-37.2	0.00	0.00	
4,453.2	5.26	96.39	4,438.0	-37.7	336.5	-37.7	0.00	0.00	Sussex
4,500.0	5.26	96.39	4,484.6	-38.2	340.8	-38.2	0.00	0.00	
4,600.0	5.26	96.39	4,584.2	-39.2	349.9	-39.2	0.00	0.00	
4,700.0	5.26	96.39	4,683.8	-40.2	359.0	-40.2	0.00	0.00	
4,800.0	5.26	96.39	4,783.3	-41.3	368.1	-41.3	0.00	0.00	
4,900.0	5.26	96.39	4,882.9	-42.3	377.2	-42.3	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #4		

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
5,000.0	5.26	96.39	4,982.5	-43.3	386.4	-43.3	0.00	0.00	
5,022.6	5.26	96.39	5,005.0	-43.5	388.4	-43.5	0.00	0.00	Shannon
5,100.0	5.26	96.39	5,082.1	-44.3	395.5	-44.3	0.00	0.00	
5,200.0	5.26	96.39	5,181.7	-45.3	404.6	-45.3	0.00	0.00	
5,300.0	5.26	96.39	5,281.2	-46.4	413.7	-46.4	0.00	0.00	
5,400.0	5.26	96.39	5,380.8	-47.4	422.8	-47.4	0.00	0.00	
5,500.0	5.26	96.39	5,480.4	-48.4	432.0	-48.4	0.00	0.00	
5,600.0	5.26	96.39	5,580.0	-49.4	441.1	-49.4	0.00	0.00	
5,700.0	5.26	96.39	5,679.5	-50.5	450.2	-50.5	0.00	0.00	
5,800.0	5.26	96.39	5,779.1	-51.5	459.3	-51.5	0.00	0.00	
5,900.0	5.26	96.39	5,878.7	-52.5	468.4	-52.5	0.00	0.00	
6,000.0	5.26	96.39	5,978.3	-53.5	477.5	-53.5	0.00	0.00	
6,100.0	5.26	96.39	6,077.9	-54.5	486.7	-54.5	0.00	0.00	
6,200.0	5.26	96.39	6,177.4	-55.6	495.8	-55.6	0.00	0.00	
6,300.0	5.26	96.39	6,277.0	-56.6	504.9	-56.6	0.00	0.00	
6,400.0	5.26	96.39	6,376.6	-57.6	514.0	-57.6	0.00	0.00	
6,500.0	5.26	96.39	6,476.2	-58.6	523.1	-58.6	0.00	0.00	
6,552.1	5.26	96.39	6,528.0	-59.2	527.9	-59.2	0.00	0.00	Teepee Buttes (*if present)
6,600.0	5.26	96.39	6,575.7	-59.7	532.3	-59.7	0.00	0.00	
6,700.0	5.26	96.39	6,675.3	-60.7	541.4	-60.7	0.00	0.00	
6,800.0	5.26	96.39	6,774.9	-61.7	550.5	-61.7	0.00	0.00	
6,900.0	5.26	96.39	6,874.5	-62.7	559.6	-62.7	0.00	0.00	
6,949.9	5.26	96.39	6,924.1	-63.2	564.2	-63.2	0.00	0.00	Start 10° Build/Turn
7,000.0	6.89	49.96	6,974.0	-61.5	568.8	-61.5	10.00	3.24	
7,050.0	10.82	29.26	7,023.4	-55.5	573.3	-55.5	10.00	7.86	
7,100.0	15.38	20.07	7,072.1	-45.2	577.9	-45.2	10.00	9.12	
7,150.0	20.15	15.07	7,119.7	-30.6	582.4	-30.6	10.00	9.53	
7,200.0	25.00	11.94	7,165.9	-12.0	586.9	-12.0	10.00	9.71	
7,250.0	29.90	9.77	7,210.2	10.7	591.2	10.7	10.00	9.80	
7,300.0	34.83	8.17	7,252.5	37.1	595.3	37.1	10.00	9.85	
7,350.0	39.77	6.92	7,292.2	67.1	599.3	67.1	10.00	9.89	
7,387.2	43.45	6.15	7,320.0	91.6	602.1	91.6	10.00	9.90	Sharon Springs
7,400.0	44.72	5.91	7,329.2	100.5	603.0	100.5	10.00	9.91	
7,450.0	49.69	5.06	7,363.2	137.0	606.5	137.0	10.00	9.92	
7,462.2	50.90	4.87	7,371.0	146.4	607.3	146.4	10.00	9.93	Niobrara
7,500.0	54.65	4.33	7,393.8	176.4	609.7	176.4	10.00	9.93	
7,550.0	59.62	3.68	7,421.0	218.3	612.7	218.3	10.00	9.94	
7,600.0	64.60	3.10	7,444.3	262.4	615.3	262.4	10.00	9.95	
7,650.0	69.57	2.56	7,463.8	308.3	617.5	308.3	10.00	9.95	
7,700.0	74.55	2.05	7,479.2	355.9	619.4	355.9	10.00	9.95	
7,732.6	77.80	1.74	7,487.0	387.5	620.5	387.5	10.00	9.96	B Chalk
7,750.0	79.53	1.57	7,490.4	404.5	621.0	404.5	10.00	9.96	
7,800.0	84.50	1.11	7,497.4	454.0	622.1	454.0	10.00	9.96	
7,850.0	89.48	0.65	7,500.0	503.9	622.9	503.9	10.00	9.96	
7,855.2	90.00	0.60	7,500.0	509.1	623.0	509.1	10.00	9.96	LP @ 7500' TVD; 90°
7,900.0	90.00	0.60	7,500.0	553.9	623.4	553.9	0.00	0.00	
8,000.0	90.00	0.60	7,500.0	653.9	624.5	653.9	0.00	0.00	
8,100.0	90.00	0.60	7,500.0	753.9	625.5	753.9	0.00	0.00	
8,200.0	90.00	0.60	7,500.0	853.9	626.6	853.9	0.00	0.00	
8,300.0	90.00	0.60	7,500.0	953.9	627.6	953.9	0.00	0.00	
8,400.0	90.00	0.60	7,500.0	1,053.9	628.7	1,053.9	0.00	0.00	
8,500.0	90.00	0.60	7,500.0	1,153.9	629.7	1,153.9	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #4		

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
8,600.0	90.00	0.60	7,500.0	1,253.9	630.8	1,253.9	0.00	0.00	
8,700.0	90.00	0.60	7,500.0	1,353.9	631.8	1,353.9	0.00	0.00	
8,800.0	90.00	0.60	7,500.0	1,453.9	632.9	1,453.9	0.00	0.00	
8,900.0	90.00	0.60	7,500.0	1,553.9	633.9	1,553.9	0.00	0.00	
9,000.0	90.00	0.60	7,500.0	1,653.9	634.9	1,653.9	0.00	0.00	
9,100.0	90.00	0.60	7,500.0	1,753.9	636.0	1,753.9	0.00	0.00	
9,200.0	90.00	0.60	7,500.0	1,853.9	637.0	1,853.9	0.00	0.00	
9,300.0	90.00	0.60	7,500.0	1,953.9	638.1	1,953.9	0.00	0.00	
9,400.0	90.00	0.60	7,500.0	2,053.8	639.1	2,053.8	0.00	0.00	
9,500.0	90.00	0.60	7,500.0	2,153.8	640.2	2,153.8	0.00	0.00	
9,600.0	90.00	0.60	7,500.0	2,253.8	641.2	2,253.8	0.00	0.00	
9,700.0	90.00	0.60	7,500.0	2,353.8	642.3	2,353.8	0.00	0.00	
9,800.0	90.00	0.60	7,500.0	2,453.8	643.3	2,453.8	0.00	0.00	
9,900.0	90.00	0.60	7,500.0	2,553.8	644.4	2,553.8	0.00	0.00	
10,000.0	90.00	0.60	7,500.0	2,653.8	645.4	2,653.8	0.00	0.00	
10,046.2	90.00	0.60	7,500.0	2,700.0	645.9	2,700.0	0.00	0.00	Start 1° Turn
10,100.0	90.00	0.06	7,500.0	2,753.8	646.2	2,753.8	1.00	0.00	
10,200.0	90.00	359.06	7,500.0	2,853.8	645.4	2,853.8	1.00	0.00	
10,300.0	90.00	358.06	7,500.0	2,953.8	642.9	2,953.8	1.00	0.00	
10,400.0	90.00	357.06	7,500.0	3,053.7	638.7	3,053.7	1.00	0.00	
10,500.0	90.00	356.06	7,500.0	3,153.5	632.7	3,153.5	1.00	0.00	
10,600.0	90.00	355.06	7,500.0	3,253.2	624.9	3,253.2	1.00	0.00	
10,700.0	90.00	354.06	7,500.0	3,352.7	615.5	3,352.7	1.00	0.00	
10,800.0	90.00	353.06	7,500.0	3,452.1	604.3	3,452.1	1.00	0.00	
10,906.2	90.00	352.00	7,500.0	3,557.4	590.5	3,557.4	1.00	0.00	EOT; 352° Az
11,000.0	90.00	352.00	7,500.0	3,650.3	577.4	3,650.3	0.00	0.00	
11,100.0	90.00	352.00	7,500.0	3,749.3	563.5	3,749.3	0.00	0.00	
11,200.0	90.00	352.00	7,500.0	3,848.4	549.6	3,848.4	0.00	0.00	
11,256.2	90.00	352.00	7,500.0	3,904.0	541.7	3,904.0	0.00	0.00	Start 1° Turn
11,300.0	90.00	352.44	7,500.0	3,947.4	535.8	3,947.4	1.00	0.00	
11,400.0	90.00	353.44	7,500.0	4,046.6	523.5	4,046.6	1.00	0.00	
11,500.0	90.00	354.44	7,500.0	4,146.1	513.0	4,146.1	1.00	0.00	
11,600.0	90.00	355.44	7,500.0	4,245.7	504.1	4,245.7	1.00	0.00	
11,700.0	90.00	356.44	7,500.0	4,345.4	497.1	4,345.4	1.00	0.00	
11,800.0	90.00	357.44	7,500.0	4,445.3	491.7	4,445.3	1.00	0.00	
11,900.0	90.00	358.44	7,500.0	4,545.2	488.1	4,545.2	1.00	0.00	
12,000.0	90.00	359.44	7,500.0	4,645.2	486.3	4,645.2	1.00	0.00	
12,100.0	90.00	0.44	7,500.0	4,745.2	486.2	4,745.2	1.00	0.00	
12,169.2	90.00	1.13	7,500.0	4,814.4	487.1	4,814.4	1.00	0.00	EOT; 1.13°
12,200.0	90.00	1.13	7,500.0	4,845.2	487.7	4,845.2	0.00	0.00	
12,300.0	90.00	1.13	7,500.0	4,945.2	489.7	4,945.2	0.00	0.00	
12,400.0	90.00	1.13	7,500.0	5,045.2	491.7	5,045.2	0.00	0.00	
12,500.0	90.00	1.13	7,500.0	5,145.1	493.6	5,145.1	0.00	0.00	
12,600.0	90.00	1.13	7,500.0	5,245.1	495.6	5,245.1	0.00	0.00	
12,700.0	90.00	1.13	7,500.0	5,345.1	497.6	5,345.1	0.00	0.00	
12,800.0	90.00	1.13	7,500.0	5,445.1	499.5	5,445.1	0.00	0.00	
12,900.0	90.00	1.13	7,500.0	5,545.1	501.5	5,545.1	0.00	0.00	
13,000.0	90.00	1.13	7,500.0	5,645.0	503.5	5,645.0	0.00	0.00	
13,100.0	90.00	1.13	7,500.0	5,745.0	505.5	5,745.0	0.00	0.00	
13,200.0	90.00	1.13	7,500.0	5,845.0	507.4	5,845.0	0.00	0.00	
13,300.0	90.00	1.13	7,500.0	5,945.0	509.4	5,945.0	0.00	0.00	
13,400.0	90.00	1.13	7,500.0	6,045.0	511.4	6,045.0	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #4		

### 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
13,500.0	90.00	1.13	7,500.0	6,144.9	513.3	6,144.9	0.00	0.00	
13,600.0	90.00	1.13	7,500.0	6,244.9	515.3	6,244.9	0.00	0.00	
13,700.0	90.00	1.13	7,500.0	6,344.9	517.3	6,344.9	0.00	0.00	
13,800.0	90.00	1.13	7,500.0	6,444.9	519.3	6,444.9	0.00	0.00	
13,900.0	90.00	1.13	7,500.0	6,544.9	521.2	6,544.9	0.00	0.00	
14,000.0	90.00	1.13	7,500.0	6,644.8	523.2	6,644.8	0.00	0.00	
14,100.0	90.00	1.13	7,500.0	6,744.8	525.2	6,744.8	0.00	0.00	
14,200.0	90.00	1.13	7,500.0	6,844.8	527.1	6,844.8	0.00	0.00	
14,300.0	90.00	1.13	7,500.0	6,944.8	529.1	6,944.8	0.00	0.00	
14,400.0	90.00	1.13	7,500.0	7,044.8	531.1	7,044.8	0.00	0.00	
14,455.0	90.00	1.13	7,500.0	7,099.8	532.2	7,099.8	0.00	0.00	TD at 14455.0

### 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
Woolley-Becky 2D-7H-E - plan hits target center - Point	0.00	0.00	7,500.0	7,099.8	532.2	1,274,619.88	3,125,524.06	40.086344	-105.051398
Woolley-Becky 2D-7H-E - plan misses target center by 42.7ft at 10902.5ft MD (7500.0 TVD, 3553.7 N, 591.0 E) - Point	0.00	0.00	7,500.0	3,559.3	633.4	1,271,079.92	3,125,643.07	40.076625	-105.051037
Woolley-Becky 2D-7H-E - plan misses target center by 71.0ft at 14455.0ft MD (7500.0 TVD, 7099.8 N, 532.2 E) - Point	0.00	0.00	7,571.0	7,099.8	532.2	1,274,619.88	3,125,524.06	40.086344	-105.051398
2D-7H TGT P4 - plan hits target center - Point	0.00	0.00	7,500.0	2,700.0	645.9	1,270,220.73	3,125,659.94	40.074266	-105.050992
Woolley-Becky 2D-7H-E - plan misses target center by 71.0ft at 14449.9ft MD (7500.0 TVD, 7094.7 N, 532.1 E) - Point	0.00	0.00	7,571.0	7,094.7	531.6	1,274,614.78	3,125,523.52	40.086330	-105.051400

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
400.0	400.0	Fox Hills - BASE			
4,453.2	4,438.0	Sussex			
5,022.6	5,005.0	Shannon			
6,552.1	6,528.0	Teepee Buttes (*if present)			
7,387.2	7,320.0	Sharon Springs			
7,462.2	7,371.0	Niobrara			
7,732.6	7,487.0	B Chalk			

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>North Reference:</b>	True
<b>Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #4		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
500.0	500.0	0.0	0.0	KOP @ 500' MD
1,026.5	1,025.7	-2.7	24.0	EOB; 5.26°
6,949.9	6,924.1	-63.2	564.2	Start 10° Build/Turn
7,855.2	7,500.0	509.1	623.0	LP @ 7500' TVD; 90°
10,046.2	7,500.0	2,700.0	645.9	Start 1° Turn
10,906.2	7,500.0	3,557.4	590.5	EOT; 352° Az
11,256.2	7,500.0	3,904.0	541.7	Start 1° Turn
12,169.2	7,500.0	4,814.4	487.1	EOT; 1.13°
14,455.0	7,500.0	7,099.8	532.2	TD at 14455.0

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

**DJ Wattenberg**

**S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)**

**Woolley-Becky 2D-7H-E168**

**Hz**

**Plan #4**

## **Anticollision Report**

**10 December, 2014**



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Reference	Plan #4		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 5,280.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	12/9/2014		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	14,454.4	Plan #4 (Hz)	Geolink MWD	Geolink MWD

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance		Separation Factor	Warning
			Between Centres (ft)	Between Ellipses (ft)		
S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)						
BEARDEN 0-6-6 (EXISTING) - ENCANA WELL - SURVE	11,070.3	7,737.3	1,145.9	1,066.1	14.358	CC
BEARDEN 0-6-6 (EXISTING) - ENCANA WELL - SURVE	11,100.0	7,737.2	1,146.3	1,066.0	14.271	ES
BEARDEN 0-6-6 (EXISTING) - ENCANA WELL - SURVE	11,400.0	7,736.1	1,194.1	1,108.3	13.910	SF
BEARDEN 1 (EXISTING) - ENCANA WELL - SURVEYS	11,078.4	7,472.8	327.4	247.8	4.112	CC, ES
BEARDEN 1 (EXISTING) - ENCANA WELL - SURVEYS	11,100.0	7,473.0	328.1	248.1	4.102	SF
BEARDEN 13-6 (EXISTING) - ENCANA WELL - SURVE	11,619.6	7,607.5	510.5	416.4	5.427	CC, ES
BEARDEN 13-6 (EXISTING) - ENCANA WELL - SURVE	11,700.0	7,610.0	517.3	421.8	5.417	SF
BEARDEN 14-6 (EXISTING) - ENCANA WELL - SURVE	10,264.5	7,644.8	686.1	613.9	9.498	CC, ES
BEARDEN 14-6 (EXISTING) - ENCANA WELL - SURVE	10,400.0	7,647.7	697.8	623.8	9.434	SF
BEARDEN 23-6 (EXISTING) - ENCANA WELL - GYRO	11,657.1	7,455.8	773.2	682.6	8.534	CC, ES
BEARDEN 23-6 (EXISTING) - ENCANA WELL - GYRO	11,800.0	7,462.4	784.5	691.1	8.399	SF
BEARDEN 2-4-6 (EXISTING) - ENCANA WELL - PLAN O	12,192.9	7,610.5	114.2	2.1	1.019	Level 2, CC, ES, SF
BEARDEN 2-8-6 (EXISTING) - ENCANA WELL - SURVE	9,622.8	7,675.3	82.2	11.7	1.165	Level 2, CC, ES, SF
BECKY 2-6 (EXISTING) - NOBLE WELL - NO SURVEYS	13,652.2	7,453.0	175.1	49.0	1.388	Level 3, CC, ES, SF
BECKY 4 (EXISTING) - MARTIN EXP WELL - NO SURV	12,877.1	7,457.0	439.0	326.4	3.898	CC, ES
BECKY 4 (EXISTING) - MARTIN EXP WELL - NO SURV	12,900.0	7,457.0	439.6	326.6	3.890	SF
BECKY 5-6 (EXISTING) - FOUNDATION WELL - NO SU	14,229.4	7,448.0	466.3	330.1	3.424	CC, ES, SF
BECKY 7-6 (EXISTING) - NOBLE WELL - NO SURVEYS	12,949.4	7,454.0	881.1	767.2	7.738	CC, ES
BECKY 7-6 (EXISTING) - NOBLE WELL - NO SURVEYS	13,100.0	7,454.0	893.9	777.4	7.673	SF
BULTHAUP 21-6 (EXISTING) - KERR-MCGEE WELL - S	13,681.0	7,577.4	1,504.6	1,372.9	11.430	CC
BULTHAUP 21-6 (EXISTING) - KERR-MCGEE WELL - S	13,700.0	7,577.7	1,504.7	1,372.7	11.402	ES
BULTHAUP 21-6 (EXISTING) - KERR-MCGEE WELL - S	14,000.0	7,583.7	1,538.0	1,400.8	11.210	SF
BULTHAUP 23-6 (EXISTING) - KERR-MCGEE WELL - S	10,765.7	7,610.0	1,401.0	1,321.4	17.609	CC, ES
BULTHAUP 23-6 (EXISTING) - KERR-MCGEE WELL - S	11,200.0	7,617.5	1,475.2	1,388.5	17.016	SF
WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SURVE	8,983.0	7,714.9	737.7	691.3	15.884	CC
WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SURVE	9,000.0	7,715.5	737.9	691.2	15.795	ES
WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SURVE	9,200.0	7,721.6	769.0	719.0	15.383	SF
WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO SUR	500.0	588.0	180.4	178.5	96.114	CC, ES
WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO SUR	7,600.0	7,532.3	750.2	722.9	27.478	SF
WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GYRO	8,960.6	7,531.2	499.9	454.1	10.909	CC, ES
WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GYRO	9,100.0	7,536.1	519.0	470.9	10.787	SF
WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SURVE	7,540.7	7,701.3	745.5	703.3	17.670	CC
WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SURVE	7,550.0	7,705.9	745.5	703.3	17.648	ES
WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SURVE	7,650.0	7,746.7	753.2	710.3	17.523	SF
WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SURVE	7,029.3	7,439.7	362.7	318.0	8.110	CC, ES, SF
WOOLLEY 4-0-7 (EXISTING) - ENCANA WELL - SURVE	9,523.8	7,620.5	1,062.6	1,004.1	18.156	CC, ES
WOOLLEY 4-0-7 (EXISTING) - ENCANA WELL - SURVE	9,900.0	7,628.9	1,127.2	1,062.3	17.376	SF
WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL - GY	8,178.9	7,538.6	51.8	17.9	1.528	CC, ES, SF
Woolley-Becky 2A-7H-E168 - Hz - Plan #2	200.0	200.0	29.9	29.3	45.878	CC, ES
Woolley-Becky 2A-7H-E168 - Hz - Plan #2	14,455.0	14,682.3	1,091.9	844.4	4.412	SF
Woolley-Becky 2B-7H-E168 - Hz - Plan #2	300.0	300.0	19.9	18.9	19.835	CC, ES
Woolley-Becky 2B-7H-E168 - Hz - Plan #2	14,455.0	14,422.4	690.2	436.6	2.721	SF
Woolley-Becky 2C-7H-E168 - Hz - Plan #4	500.0	500.0	9.8	8.1	5.762	CC, ES
Woolley-Becky 2C-7H-E168 - Hz - Plan #4	14,455.0	14,623.0	403.9	198.1	1.962	SF
Woolley-Becky 2E-7H-E168 - Hz - Plan #2	400.0	400.0	10.1	8.7	7.459	CC, ES
Woolley-Becky 2E-7H-E168 - Hz - Plan #2	14,455.0	14,687.5	424.3	213.1	2.009	SF
Woolley-Becky 2F-7H-E168 - Hz - Plan #3	300.0	300.0	20.2	19.2	20.118	CC, ES
Woolley-Becky 2F-7H-E168 - Hz - Plan #3	14,455.0	14,281.0	697.9	444.2	2.751	SF
Woolley-Becky 2G-7H-E168 - Hz - Plan #2	233.3	233.3	29.9	29.2	38.939	CC
Woolley-Becky 2G-7H-E168 - Hz - Plan #2	300.0	299.7	30.2	29.2	30.121	ES
Woolley-Becky 2G-7H-E168 - Hz - Plan #2	14,455.0	14,839.0	1,077.2	828.8	4.336	SF
Woolley-Becky 2H-7H-E168 - Hz - Plan #3	200.0	200.0	40.0	39.4	61.316	CC, ES
Woolley-Becky 2H-7H-E168 - Hz - Plan #3	14,455.0	14,534.7	1,353.2	1,101.8	5.384	SF

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)						
Woolley-Sosa 2A-7H-E168 - Hz - Plan #2	200.0	200.0	548.0	547.4	839.527	CC
Woolley-Sosa 2A-7H-E168 - Hz - Plan #2	500.0	499.7	548.1	546.4	322.462	ES
Woolley-Sosa 2A-7H-E168 - Hz - Plan #2	8,500.0	7,350.0	1,364.6	1,324.3	33.829	SF
Woolley-Sosa 2B-7H-E168 - HZ - Plan #2	300.0	300.0	89.8	88.8	89.679	CC, ES
Woolley-Sosa 2B-7H-E168 - HZ - Plan #2	8,000.0	7,330.4	897.0	865.2	28.228	SF
Woolley-Sosa 2C-7H-E168 - HZ - Plan #2	569.6	570.6	79.4	77.5	40.780	CC
Woolley-Sosa 2C-7H-E168 - HZ - Plan #2	600.0	601.1	79.5	77.4	38.678	ES
Woolley-Sosa 2C-7H-E168 - HZ - Plan #2	7,800.0	7,530.2	443.5	412.5	14.329	SF
Woolley-Sosa 2D-7H-E168 - HZ - Plan #2	500.0	500.0	70.0	68.3	41.160	CC
Woolley-Sosa 2D-7H-E168 - HZ - Plan #2	600.0	600.8	70.3	68.2	34.279	ES
Woolley-Sosa 2D-7H-E168 - HZ - Plan #2	7,600.0	7,612.0	170.0	141.7	6.005	SF
Woolley-Sosa 2E-7H-E168 - HZ - Plan #3	500.0	500.0	59.9	58.2	35.233	CC
Woolley-Sosa 2E-7H-E168 - HZ - Plan #3	7,827.0	7,577.6	77.2	45.4	2.433	ES, SF
Woolley-Sosa 2F-7H-E168 - HZ - Plan #2	940.6	944.2	37.5	34.2	11.224	CC, ES
Woolley-Sosa 2F-7H-E168 - HZ - Plan #2	1,300.0	1,303.3	45.0	39.8	8.647	SF
Woolley-Sosa 2G-7H-E168 - HZ - Plan #2	878.1	880.4	20.4	17.2	6.369	CC
Woolley-Sosa 2G-7H-E168 - HZ - Plan #2	900.0	902.4	20.5	17.1	6.186	ES
Woolley-Sosa 2G-7H-E168 - HZ - Plan #2	1,000.0	1,002.2	22.4	18.6	5.883	SF

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 0-6-6 (EXISTING) - ENCANA WELL - SU													Offset Site Error:	0.0 ft
Survey Program: 46-Geolink 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	
0.0	0.0	0.0	0.0	0.0	0.0	14.80	3,634.0	959.8	3,758.7					
100.0	100.0	70.9	70.9	0.2	0.1	14.79	3,634.2	959.7	3,758.8	3,758.6	0.25	N/A		
200.0	200.0	157.2	157.2	0.3	0.3	14.79	3,634.8	959.4	3,759.4	3,758.8	0.58	6,499.186		
300.0	300.0	226.0	226.0	0.5	0.4	14.78	3,635.6	958.9	3,760.4	3,759.6	0.87	4,302.135		
400.0	400.0	320.4	320.4	0.7	0.5	14.75	3,637.5	958.0	3,762.0	3,760.8	1.22	3,094.295		
500.0	500.0	409.3	409.2	0.8	0.7	14.71	3,639.7	955.7	3,763.8	3,762.3	1.55	2,430.208		
600.0	600.0	517.0	516.7	1.0	0.9	-81.77	3,643.4	950.3	3,765.8	3,763.8	1.94	1,943.621		
700.0	700.0	753.1	751.3	1.2	1.5	-82.26	3,649.4	925.3	3,765.0	3,762.3	2.68	1,403.660		
800.0	799.9	845.9	843.4	1.4	1.7	-82.52	3,650.6	913.4	3,762.6	3,759.5	3.11	1,209.370		
900.0	899.7	919.7	916.5	1.6	1.9	-82.76	3,652.1	903.8	3,760.6	3,757.1	3.51	1,072.208		
1,000.0	999.4	1,182.4	1,175.8	1.8	2.8	-83.73	3,654.8	862.2	3,757.5	3,753.0	4.54	827.272		
1,026.5	1,025.7	1,212.9	1,205.9	1.8	2.9	-83.87	3,654.5	856.7	3,755.9	3,751.2	4.70	798.418		
1,100.0	1,098.9	1,290.6	1,282.1	2.0	3.1	-84.19	3,653.6	842.1	3,751.3	3,746.1	5.14	730.249		
1,200.0	1,198.5	1,405.0	1,394.2	2.2	3.6	-84.69	3,652.4	819.1	3,745.0	3,739.2	5.79	646.351		
1,300.0	1,298.1	1,547.8	1,532.9	2.4	4.2	-85.38	3,650.8	785.4	3,738.1	3,731.4	6.65	562.075		
1,400.0	1,397.7	1,771.3	1,746.3	2.7	5.5	-86.67	3,645.9	719.1	3,729.6	3,721.5	8.09	461.239		
1,500.0	1,497.3	1,871.4	1,840.4	2.9	6.1	-87.31	3,642.4	685.2	3,719.3	3,710.3	8.94	416.206		
1,600.0	1,596.8	1,947.5	1,911.5	3.1	6.6	-87.81	3,640.1	658.3	3,709.6	3,699.9	9.65	384.322		
1,700.0	1,696.4	2,064.2	2,020.6	3.3	7.4	-88.60	3,636.3	616.8	3,700.1	3,689.4	10.64	347.657		
1,800.0	1,796.0	2,145.9	2,096.8	3.6	7.9	-89.15	3,633.5	587.5	3,690.9	3,679.5	11.41	323.419		
1,900.0	1,895.6	2,223.1	2,168.8	3.8	8.4	-89.67	3,631.2	560.0	3,682.6	3,670.5	12.15	303.055		
2,000.0	1,995.2	2,312.6	2,252.5	4.0	9.0	-90.27	3,628.4	528.4	3,674.8	3,661.9	12.97	283.315		
2,100.0	2,094.7	2,387.6	2,322.8	4.3	9.5	-90.78	3,626.3	502.3	3,667.9	3,654.2	13.69	267.830		
2,200.0	2,194.3	2,492.1	2,420.7	4.5	10.2	-91.48	3,623.3	465.9	3,661.4	3,646.8	14.62	250.511		
2,300.0	2,293.9	2,597.3	2,519.3	4.7	10.9	-92.19	3,619.9	429.2	3,655.1	3,639.6	15.55	235.087		
2,400.0	2,393.5	2,712.0	2,626.6	5.0	11.6	-92.97	3,615.5	389.0	3,648.7	3,632.1	16.54	220.601		
2,500.0	2,493.0	2,785.3	2,695.4	5.2	12.1	-93.46	3,612.6	363.8	3,642.7	3,625.4	17.25	211.150		
2,600.0	2,592.6	2,839.4	2,746.2	5.4	12.4	-93.82	3,610.8	345.3	3,637.9	3,620.0	17.84	203.933		
2,700.0	2,692.2	2,895.5	2,799.0	5.7	12.8	-94.19	3,609.6	326.2	3,634.5	3,616.1	18.44	197.151		
2,800.0	2,791.8	3,055.0	2,949.1	5.9	13.8	-95.25	3,605.8	272.7	3,631.8	3,612.1	19.71	184.287		
2,900.0	2,891.4	3,118.4	3,008.5	6.1	14.3	-95.69	3,603.7	250.3	3,628.4	3,608.0	20.37	178.107		
3,000.0	2,990.9	3,181.3	3,067.2	6.4	14.7	-96.12	3,602.1	228.0	3,626.2	3,605.2	21.04	172.388		
3,100.0	3,090.5	3,254.7	3,135.8	6.6	15.2	-96.63	3,600.8	201.8	3,625.2	3,603.4	21.77	166.548		
3,200.0	3,190.1	3,345.2	3,220.5	6.8	15.8	-97.25	3,599.2	170.3	3,624.8	3,602.2	22.60	160.388		
3,224.2	3,214.2	3,367.1	3,241.1	6.9	15.9	-97.40	3,598.9	162.6	3,624.8	3,602.0	22.80	158.964		
3,300.0	3,289.7	3,439.6	3,309.1	7.1	16.4	-97.90	3,597.6	137.4	3,624.9	3,601.5	23.46	154.514		
3,400.0	3,389.2	3,562.7	3,424.5	7.3	17.2	-98.74	3,594.9	94.7	3,625.2	3,600.7	24.51	147.928		
3,500.0	3,488.8	3,689.5	3,543.2	7.6	18.1	-99.61	3,590.6	50.4	3,624.7	3,599.1	25.58	141.677		
3,552.4	3,541.0	3,731.1	3,582.1	7.7	18.3	-99.89	3,589.0	35.8	3,624.6	3,598.6	25.98	139.502		
3,600.0	3,588.4	3,779.1	3,627.1	7.8	18.7	-100.22	3,587.3	19.0	3,624.6	3,598.2	26.41	137.254		
3,700.0	3,688.0	3,855.6	3,698.8	8.0	19.2	-100.74	3,584.4	-7.4	3,625.0	3,597.9	27.14	133.562		
3,800.0	3,787.6	3,913.0	3,752.6	8.3	19.6	-101.13	3,582.9	-27.3	3,626.7	3,599.0	27.75	130.697		
3,900.0	3,887.1	4,007.4	3,841.0	8.5	20.2	-101.78	3,580.7	-60.3	3,629.4	3,600.8	28.60	126.890		
4,000.0	3,986.7	4,110.3	3,937.3	8.7	20.9	-102.49	3,577.6	-96.7	3,632.1	3,602.6	29.52	123.035		
4,100.0	4,086.3	4,184.1	4,006.0	9.0	21.4	-103.01	3,575.6	-123.4	3,635.5	3,605.2	30.26	120.151		
4,200.0	4,185.9	4,270.8	4,086.4	9.2	22.0	-103.63	3,573.2	-155.8	3,639.6	3,608.6	31.09	117.056		
4,300.0	4,285.4	4,400.0	4,206.4	9.4	22.9	-104.55	3,569.4	-203.5	3,644.3	3,612.1	32.18	113.240		
4,400.0	4,385.0	4,513.0	4,312.1	9.7	23.7	-105.32	3,564.9	-243.3	3,648.1	3,615.0	33.14	110.084		
4,500.0	4,484.6	4,575.7	4,370.6	9.9	24.1	-105.75	3,562.5	-265.4	3,652.7	3,618.9	33.78	108.144		
4,600.0	4,584.2	4,645.2	4,435.6	10.2	24.6	-106.23	3,560.4	-290.2	3,658.5	3,624.0	34.45	106.195		
4,700.0	4,683.8	4,731.1	4,516.0	10.4	25.1	-106.81	3,558.1	-320.2	3,665.0	3,629.8	35.20	104.113		
4,800.0	4,783.3	4,813.7	4,593.9	10.6	25.7	-107.34	3,556.2	-347.7	3,672.1	3,636.2	35.91	102.255		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 0-6-6 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 46-Geolink 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)			
4,900.0	4,882.9	4,897.9	4,673.5	10.9	26.2	-107.87	3,554.8	-374.9	3,680.0	3,643.4	36.60	100.540	
5,000.0	4,982.5	5,008.2	4,778.9	11.1	26.8	-108.52	3,553.4	-407.9	3,688.1	3,650.7	37.38	98.668	
5,100.0	5,082.1	5,108.3	4,875.2	11.3	27.3	-109.06	3,552.3	-434.9	3,696.2	3,658.1	38.05	97.127	
5,200.0	5,181.7	5,261.8	5,024.4	11.6	27.9	-109.81	3,550.2	-470.9	3,703.3	3,664.5	38.87	95.282	
5,300.0	5,281.2	5,365.4	5,125.8	11.8	28.3	-110.27	3,549.0	-491.8	3,710.3	3,670.9	39.44	94.085	
5,400.0	5,380.8	5,445.8	5,204.9	12.0	28.6	-110.59	3,548.6	-506.4	3,717.6	3,677.7	39.90	93.172	
5,500.0	5,480.4	5,582.6	5,340.1	12.3	29.0	-111.08	3,548.4	-526.9	3,724.5	3,684.1	40.45	92.073	
5,600.0	5,580.0	5,730.2	5,486.7	12.5	29.3	-111.52	3,548.2	-543.7	3,730.8	3,689.8	40.95	91.106	
5,700.0	5,679.5	5,854.0	5,610.2	12.8	29.5	-111.82	3,547.9	-553.3	3,736.1	3,694.7	41.35	90.350	
5,800.0	5,779.1	5,998.2	5,754.2	13.0	29.7	-112.12	3,547.0	-560.6	3,740.2	3,698.5	41.73	89.634	
5,900.0	5,878.7	6,103.7	5,859.7	13.2	29.8	-112.31	3,546.3	-563.9	3,743.9	3,701.9	42.04	89.056	
6,000.0	5,978.3	6,227.0	5,982.9	13.5	29.9	-112.51	3,545.2	-566.5	3,747.2	3,704.8	42.36	88.470	
6,100.0	6,077.9	6,297.5	6,053.4	13.7	30.0	-112.62	3,544.8	-567.6	3,750.6	3,707.9	42.63	87.986	
6,200.0	6,177.4	6,367.5	6,123.4	13.9	30.0	-112.73	3,545.0	-568.5	3,754.7	3,711.8	42.90	87.532	
6,300.0	6,277.0	6,447.8	6,203.7	14.2	30.1	-112.84	3,545.8	-569.4	3,759.6	3,716.5	43.17	87.098	
6,400.0	6,376.6	6,536.5	6,292.4	14.4	30.2	-112.96	3,547.1	-570.1	3,764.9	3,721.4	43.44	86.675	
6,500.0	6,476.2	6,637.2	6,393.1	14.7	30.2	-113.09	3,548.9	-570.7	3,770.3	3,726.6	43.72	86.244	
6,600.0	6,575.7	6,745.5	6,501.3	14.9	30.3	-113.23	3,550.6	-571.4	3,775.6	3,731.6	44.00	85.806	
6,700.0	6,675.3	6,863.5	6,619.3	15.1	30.4	-113.38	3,552.1	-571.9	3,780.6	3,736.3	44.29	85.366	
6,800.0	6,774.9	6,972.9	6,728.7	15.4	30.5	-113.52	3,553.0	-572.0	3,785.1	3,740.6	44.57	84.926	
6,900.0	6,874.5	7,076.0	6,831.9	15.6	30.6	-113.65	3,553.8	-572.2	3,789.6	3,744.7	44.85	84.492	
6,949.9	6,924.1	7,117.3	6,873.1	15.7	30.6	-113.70	3,554.1	-572.2	3,791.8	3,746.8	44.99	84.286	
7,000.0	6,974.0	7,156.5	6,912.3	15.8	30.6	-67.54	3,554.5	-572.3	3,792.1	3,747.1	45.05	84.178	
7,050.0	7,023.4	7,195.4	6,951.2	15.9	30.7	-47.27	3,555.0	-572.5	3,788.4	3,743.6	44.81	84.541	
7,100.0	7,072.1	7,233.8	6,989.6	16.0	30.7	-38.63	3,555.6	-572.7	3,780.8	3,736.5	44.28	85.378	
7,150.0	7,119.7	7,286.9	7,042.7	16.2	30.7	-34.41	3,556.5	-573.0	3,769.1	3,725.7	43.47	86.707	
7,200.0	7,165.9	7,359.9	7,115.7	16.3	30.8	-32.31	3,557.5	-572.8	3,753.3	3,710.9	42.39	88.545	
7,250.0	7,210.2	7,428.0	7,183.8	16.4	30.8	-31.40	3,558.2	-572.1	3,733.4	3,692.3	41.06	90.915	
7,300.0	7,252.5	7,469.7	7,225.5	16.5	30.8	-31.22	3,558.5	-571.4	3,709.7	3,670.2	39.53	93.856	
7,350.0	7,292.2	7,507.9	7,263.7	16.7	30.8	-31.68	3,558.9	-570.7	3,682.6	3,644.8	37.82	97.384	
7,400.0	7,329.2	7,543.6	7,299.3	16.8	30.8	-32.75	3,559.2	-570.1	3,652.3	3,616.3	35.99	101.491	
7,450.0	7,363.2	7,576.4	7,332.1	17.0	30.9	-34.42	3,559.6	-569.5	3,619.0	3,584.9	34.11	106.104	
7,500.0	7,393.8	7,609.1	7,364.8	17.3	30.9	-36.82	3,560.0	-568.9	3,583.0	3,550.7	32.28	111.006	
7,550.0	7,421.0	7,646.2	7,401.9	17.5	30.9	-40.16	3,560.3	-568.2	3,544.5	3,513.9	30.63	115.721	
7,600.0	7,444.3	7,677.8	7,433.5	17.8	30.9	-44.55	3,560.4	-567.8	3,503.8	3,474.5	29.32	119.519	
7,650.0	7,463.8	7,703.9	7,459.6	18.2	30.9	-50.27	3,560.5	-567.4	3,461.3	3,432.8	28.52	121.377	
7,700.0	7,479.2	7,724.2	7,479.9	18.5	30.9	-57.59	3,560.5	-567.2	3,417.3	3,388.9	28.37	120.466	
7,750.0	7,490.4	7,738.8	7,494.5	18.9	31.0	-66.73	3,560.4	-567.1	3,372.2	3,343.3	28.83	116.976	
7,800.0	7,497.4	7,747.6	7,503.3	19.3	31.0	-77.65	3,560.4	-567.0	3,326.3	3,296.7	29.57	112.501	
7,850.0	7,500.0	7,750.7	7,506.5	19.8	31.0	-89.77	3,560.4	-567.0	3,280.0	3,249.9	30.06	109.112	
7,855.2	7,500.0	7,750.7	7,506.5	19.9	31.0	-91.05	3,560.4	-567.0	3,275.2	3,245.1	30.08	108.879	
7,900.0	7,500.0	7,750.5	7,506.2	20.3	31.0	-91.04	3,560.4	-567.0	3,233.6	3,203.0	30.60	105.676	
8,000.0	7,500.0	7,749.9	7,505.6	21.3	31.0	-91.01	3,560.4	-567.0	3,141.3	3,109.4	31.82	98.705	
8,100.0	7,500.0	7,749.4	7,505.1	22.5	31.0	-90.99	3,560.4	-567.0	3,049.4	3,016.3	33.13	92.041	
8,200.0	7,500.0	7,748.8	7,504.6	23.7	31.0	-90.96	3,560.4	-567.0	2,958.0	2,923.5	34.50	85.736	
8,300.0	7,500.0	7,748.3	7,504.1	25.0	31.0	-90.94	3,560.4	-567.0	2,867.3	2,831.3	35.93	79.810	
8,400.0	7,500.0	7,747.8	7,503.6	26.3	31.0	-90.92	3,560.4	-567.0	2,777.1	2,739.7	37.39	74.266	
8,500.0	7,500.0	7,747.3	7,503.1	27.7	31.0	-90.89	3,560.4	-567.0	2,687.7	2,648.8	38.90	69.094	
8,600.0	7,500.0	7,746.9	7,502.6	29.1	31.0	-90.87	3,560.4	-567.0	2,599.0	2,558.6	40.43	64.279	
8,700.0	7,500.0	7,746.4	7,502.1	30.5	31.0	-90.85	3,560.4	-567.0	2,511.2	2,469.2	41.99	59.800	
8,800.0	7,500.0	7,745.9	7,501.7	32.0	31.0	-90.83	3,560.4	-567.0	2,424.3	2,380.8	43.58	55.636	
8,900.0	7,500.0	7,745.5	7,501.2	33.5	31.0	-90.81	3,560.4	-567.0	2,338.5	2,293.3	45.17	51.766	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 0-6-6 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 46-Geolink 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
9,000.0	7,500.0	7,745.1	7,500.8	35.1	31.0	-90.79	3,560.4	-567.0	2,253.9	2,207.1	46.79	48.170	
9,100.0	7,500.0	7,744.6	7,500.4	36.6	31.0	-90.77	3,560.4	-567.1	2,170.5	2,122.1	48.42	44.828	
9,200.0	7,500.0	7,744.2	7,500.0	38.2	31.0	-90.75	3,560.4	-567.1	2,088.6	2,038.6	50.06	41.724	
9,300.0	7,500.0	7,743.8	7,499.6	39.8	31.0	-90.73	3,560.4	-567.1	2,008.4	1,956.7	51.71	38.840	
9,400.0	7,500.0	7,743.4	7,499.2	41.4	31.0	-90.71	3,560.4	-567.1	1,930.0	1,876.6	53.37	36.164	
9,500.0	7,500.0	7,743.0	7,498.8	43.0	31.0	-90.69	3,560.4	-567.1	1,853.7	1,798.6	55.03	33.682	
9,600.0	7,500.0	7,742.7	7,498.4	44.6	31.0	-90.68	3,560.4	-567.1	1,779.7	1,723.0	56.71	31.383	
9,700.0	7,500.0	7,742.3	7,498.0	46.2	31.0	-90.66	3,560.4	-567.1	1,708.4	1,650.0	58.39	29.259	
9,800.0	7,500.0	7,741.9	7,497.7	47.9	31.0	-90.64	3,560.4	-567.1	1,640.0	1,580.0	60.07	27.301	
9,900.0	7,500.0	7,741.6	7,497.3	49.5	31.0	-90.62	3,560.4	-567.1	1,575.1	1,513.4	61.76	25.502	
10,000.0	7,500.0	7,741.2	7,497.0	51.2	31.0	-90.61	3,560.4	-567.1	1,514.0	1,450.6	63.46	23.858	
10,046.2	7,500.0	7,741.1	7,496.8	51.9	31.0	-90.60	3,560.4	-567.1	1,487.2	1,423.0	64.24	23.150	
10,100.0	7,500.0	7,740.9	7,496.6	52.8	31.0	-90.60	3,560.4	-567.1	1,457.0	1,392.0	65.03	22.406	
10,200.0	7,500.0	7,740.5	7,496.3	54.5	31.0	-90.59	3,560.4	-567.1	1,403.4	1,337.0	66.49	21.107	
10,300.0	7,500.0	7,740.2	7,495.9	56.1	31.0	-90.57	3,560.4	-567.1	1,353.6	1,285.7	67.96	19.917	
10,400.0	7,500.0	7,739.8	7,495.6	57.8	31.0	-90.56	3,560.4	-567.1	1,308.0	1,238.5	69.44	18.836	
10,500.0	7,500.0	7,739.5	7,495.2	59.5	31.0	-90.55	3,560.4	-567.1	1,267.0	1,196.0	70.92	17.864	
10,600.0	7,500.0	7,739.1	7,494.8	61.1	31.0	-90.53	3,560.4	-567.1	1,231.0	1,158.6	72.41	17.002	
10,700.0	7,500.0	7,738.7	7,494.5	62.8	31.0	-90.52	3,560.4	-567.1	1,200.7	1,126.8	73.90	16.248	
10,800.0	7,500.0	7,738.3	7,494.1	64.4	31.0	-90.50	3,560.4	-567.1	1,176.4	1,101.0	75.39	15.604	
10,906.2	7,500.0	7,737.9	7,493.7	66.2	31.0	-90.48	3,560.4	-567.1	1,157.6	1,080.6	76.98	15.038	
11,000.0	7,500.0	7,737.6	7,493.3	67.7	31.0	-90.46	3,560.4	-567.1	1,148.1	1,069.5	78.60	14.607	
11,070.3	7,500.0	7,737.3	7,493.0	68.9	31.0	-90.45	3,560.4	-567.1	1,145.9	1,066.1	79.81	14.358 CC	
11,100.0	7,500.0	7,737.2	7,492.9	69.4	31.0	-90.45	3,560.4	-567.1	1,146.3	1,066.0	80.32	14.271 ES	
11,200.0	7,500.0	7,736.8	7,492.5	71.0	31.0	-90.43	3,560.4	-567.1	1,153.2	1,071.2	82.05	14.055	
11,256.2	7,500.0	7,736.6	7,492.3	72.0	31.0	-90.42	3,560.4	-567.1	1,160.9	1,077.9	83.03	13.982	
11,300.0	7,500.0	7,736.4	7,492.2	72.7	31.0	-90.41	3,560.4	-567.1	1,168.9	1,085.0	83.89	13.934	
11,400.0	7,500.0	7,736.1	7,491.8	74.4	31.0	-90.39	3,560.4	-567.1	1,194.1	1,108.3	85.84	13.910 SF	
11,500.0	7,500.0	7,735.7	7,491.5	76.1	31.0	-90.38	3,560.4	-567.1	1,228.7	1,140.9	87.80	13.994	
11,600.0	7,500.0	7,735.4	7,491.2	77.8	31.0	-90.37	3,560.4	-567.1	1,271.7	1,182.0	89.76	14.169	
11,700.0	7,500.0	7,735.1	7,490.9	79.5	31.0	-90.35	3,560.4	-567.1	1,322.4	1,230.7	91.71	14.420	
11,800.0	7,500.0	7,734.8	7,490.6	81.2	31.0	-90.34	3,560.4	-567.1	1,379.9	1,286.3	93.65	14.735	
11,900.0	7,500.0	7,734.6	7,490.3	82.9	31.0	-90.33	3,560.4	-567.1	1,443.4	1,347.8	95.59	15.099	
12,000.0	7,500.0	7,734.3	7,490.1	84.7	31.0	-90.33	3,560.4	-567.1	1,512.1	1,414.6	97.53	15.504	
12,100.0	7,500.0	7,734.1	7,489.8	86.4	31.0	-90.32	3,560.4	-567.1	1,585.3	1,485.8	99.46	15.939	
12,169.2	7,500.0	7,733.9	7,489.7	87.6	31.0	-90.32	3,560.4	-567.1	1,638.3	1,537.5	100.79	16.254	
12,200.0	7,500.0	7,733.9	7,489.6	88.1	31.0	-90.31	3,560.4	-567.1	1,662.3	1,561.0	101.33	16.406	
12,300.0	7,500.0	7,733.7	7,489.4	89.8	31.0	-90.30	3,560.4	-567.1	1,742.0	1,638.9	103.06	16.902	
12,400.0	7,500.0	7,733.5	7,489.2	91.6	31.0	-90.29	3,560.4	-567.1	1,823.6	1,718.8	104.80	17.401	
12,500.0	7,500.0	7,733.3	7,489.0	93.3	31.0	-90.28	3,560.4	-567.1	1,907.0	1,800.4	106.54	17.900	
12,600.0	7,500.0	7,733.1	7,488.8	95.0	31.0	-90.27	3,560.4	-567.1	1,991.9	1,883.6	108.27	18.397	
12,700.0	7,500.0	7,732.9	7,488.6	96.8	31.0	-90.26	3,560.4	-567.1	2,078.1	1,968.1	110.01	18.890	
12,800.0	7,500.0	7,732.7	7,488.4	98.5	31.0	-90.25	3,560.4	-567.2	2,165.6	2,053.8	111.75	19.378	
12,900.0	7,500.0	7,732.5	7,488.2	100.2	31.0	-90.24	3,560.4	-567.2	2,254.1	2,140.6	113.49	19.861	
13,000.0	7,500.0	7,732.3	7,488.0	102.0	31.0	-90.23	3,560.4	-567.2	2,343.5	2,228.2	115.23	20.337	
13,100.0	7,500.0	7,732.1	7,487.9	103.7	31.0	-90.21	3,560.4	-567.2	2,433.7	2,316.7	116.97	20.806	
13,200.0	7,500.0	7,731.9	7,487.7	105.4	31.0	-90.20	3,560.4	-567.2	2,524.7	2,406.0	118.71	21.267	
13,300.0	7,500.0	7,731.8	7,487.5	107.2	31.0	-90.20	3,560.4	-567.2	2,616.3	2,495.9	120.46	21.720	
13,400.0	7,500.0	7,731.6	7,487.3	108.9	31.0	-90.19	3,560.4	-567.2	2,708.5	2,586.3	122.20	22.165	
13,500.0	7,500.0	7,731.4	7,487.2	110.7	31.0	-90.18	3,560.4	-567.2	2,801.3	2,677.3	123.94	22.602	
13,600.0	7,500.0	7,731.3	7,487.0	112.4	31.0	-90.17	3,560.4	-567.2	2,894.5	2,768.8	125.68	23.031	
13,700.0	7,500.0	7,731.1	7,486.8	114.1	31.0	-90.16	3,560.4	-567.2	2,988.2	2,860.8	127.42	23.451	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 0-6-6 (EXISTING) - ENCANA WELL - SU													<b>Offset Site Error:</b> 0.0 ft
Survey Program: 46-Geolink MWD													<b>Offset Well Error:</b> 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
13,800.0	7,500.0	7,730.9	7,486.7	115.9	31.0	-90.15	3,560.4	-567.2	3,082.3	2,953.1	129.17	23.862	
13,900.0	7,500.0	7,730.8	7,486.5	117.6	31.0	-90.14	3,560.4	-567.2	3,176.7	3,045.8	130.91	24.266	
14,000.0	7,500.0	7,730.6	7,486.3	119.4	31.0	-90.13	3,560.4	-567.2	3,271.5	3,138.8	132.66	24.661	
14,100.0	7,500.0	7,730.5	7,486.2	121.1	31.0	-90.12	3,560.4	-567.2	3,366.5	3,232.1	134.40	25.049	
14,200.0	7,500.0	7,730.3	7,486.0	122.8	31.0	-90.11	3,560.4	-567.2	3,461.9	3,325.7	136.14	25.428	
14,300.0	7,500.0	7,730.1	7,485.9	124.6	31.0	-90.10	3,560.4	-567.2	3,557.5	3,419.6	137.89	25.799	
14,400.0	7,500.0	7,730.0	7,485.7	126.3	31.0	-90.10	3,560.4	-567.2	3,653.3	3,513.7	139.63	26.163	
14,455.0	7,500.0	7,729.9	7,485.7	127.3	31.0	-90.09	3,560.4	-567.2	3,706.1	3,565.6	140.60	26.360	



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 1 (EXISTING) - ENCANA WELL - SURV													Offset Site Error:	0.0 ft
Survey Program: 100-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	14.76	3,647.9	961.0	3,772.5					
100.0	100.0	72.4	72.4	0.2	0.1	14.76	3,647.8	961.1	3,772.3	3,772.0	0.28	N/A		
171.7	171.7	140.6	140.6	0.3	0.2	14.76	3,647.7	961.2	3,772.3	3,771.7	0.52	7,220.177		
200.0	200.0	165.9	165.9	0.3	0.3	14.76	3,647.7	961.2	3,772.3	3,771.7	0.62	6,123.900		
300.0	300.0	262.1	262.1	0.5	0.5	14.75	3,648.0	960.8	3,772.4	3,771.5	0.96	3,936.053		
400.0	400.0	374.7	374.7	0.7	0.7	14.73	3,648.5	959.4	3,772.5	3,771.2	1.33	2,837.593		
473.3	473.3	441.9	441.9	0.8	0.8	14.72	3,648.7	958.3	3,772.4	3,770.8	1.57	2,395.434		
500.0	500.0	463.3	463.3	0.8	0.8	14.71	3,648.8	957.9	3,772.4	3,770.8	1.66	2,274.314		
600.0	600.0	535.9	535.9	1.0	0.9	-81.71	3,649.5	956.6	3,772.8	3,770.8	1.97	1,919.731		
700.0	700.0	600.0	599.9	1.2	1.1	-81.74	3,650.5	955.7	3,773.7	3,771.5	2.26	1,672.892		
800.0	799.9	667.5	667.4	1.4	1.2	-81.79	3,652.3	954.9	3,775.3	3,772.8	2.56	1,475.156		
900.0	899.7	736.0	735.9	1.6	1.3	-81.86	3,654.8	953.7	3,777.6	3,774.7	2.87	1,314.339		
1,000.0	999.4	812.1	811.8	1.8	1.4	-81.96	3,658.2	952.3	3,780.4	3,777.1	3.22	1,175.734		
1,026.5	1,025.7	841.4	841.2	1.8	1.5	-82.00	3,659.6	951.7	3,781.1	3,777.8	3.32	1,137.413		
1,100.0	1,098.9	920.5	920.1	2.0	1.6	-82.15	3,663.3	949.9	3,783.1	3,779.5	3.62	1,043.692		
1,200.0	1,198.5	1,021.8	1,021.3	2.2	1.8	-82.34	3,668.0	947.6	3,785.8	3,781.8	4.03	940.327		
1,300.0	1,298.1	1,127.2	1,126.6	2.4	2.0	-82.53	3,672.5	945.7	3,788.3	3,783.9	4.44	853.889		
1,400.0	1,397.7	1,224.7	1,224.0	2.7	2.2	-82.70	3,676.7	944.1	3,791.0	3,786.1	4.84	783.987		
1,500.0	1,497.3	1,339.1	1,338.3	2.9	2.4	-82.90	3,681.3	942.3	3,793.4	3,788.1	5.27	720.299		
1,600.0	1,596.8	1,446.1	1,445.2	3.1	2.6	-83.09	3,685.3	940.4	3,795.5	3,789.8	5.69	667.402		
1,700.0	1,696.4	1,538.7	1,537.7	3.3	2.8	-83.26	3,688.8	938.4	3,797.7	3,791.6	6.08	624.369		
1,800.0	1,796.0	1,635.9	1,634.8	3.6	3.0	-83.42	3,692.6	937.2	3,800.1	3,793.6	6.48	586.031		
1,900.0	1,895.6	1,741.6	1,740.5	3.8	3.2	-83.60	3,696.4	936.1	3,802.3	3,795.4	6.90	550.873		
2,000.0	1,995.2	1,834.5	1,833.3	4.0	3.4	-83.75	3,699.8	935.1	3,804.7	3,797.4	7.30	521.337		
2,100.0	2,094.7	1,938.8	1,937.5	4.3	3.6	-83.92	3,703.6	934.5	3,807.2	3,799.5	7.71	493.701		
2,200.0	2,194.3	2,061.9	2,060.6	4.5	3.8	-84.10	3,707.4	934.6	3,809.2	3,801.0	8.16	466.992		
2,300.0	2,293.9	2,200.0	2,198.6	4.7	4.0	-84.29	3,710.4	934.7	3,810.4	3,801.8	8.63	441.658		
2,400.0	2,393.5	2,288.8	2,287.4	5.0	4.2	-84.42	3,711.9	934.9	3,811.2	3,802.2	9.01	422.800		
2,500.0	2,493.0	2,436.5	2,435.1	5.2	4.4	-84.61	3,713.7	935.7	3,811.6	3,802.1	9.50	401.221		
2,600.0	2,592.6	2,531.0	2,529.6	5.4	4.6	-84.73	3,714.2	936.4	3,811.5	3,801.6	9.90	385.150		
2,600.4	2,593.1	2,531.4	2,530.0	5.4	4.6	-84.73	3,714.2	936.4	3,811.5	3,801.6	9.90	385.083		
2,700.0	2,692.2	2,617.9	2,616.5	5.7	4.7	-84.85	3,715.1	936.5	3,811.7	3,801.4	10.28	370.740		
2,800.0	2,791.8	2,723.7	2,722.3	5.9	4.9	-85.01	3,716.4	936.3	3,812.0	3,801.3	10.70	356.257		
2,900.0	2,891.4	2,864.1	2,862.7	6.1	5.2	-85.23	3,717.4	934.7	3,811.7	3,800.5	11.18	340.862		
3,000.0	2,990.9	2,980.0	2,978.5	6.4	5.4	-85.41	3,717.3	932.9	3,810.6	3,799.0	11.62	327.879		
3,100.0	3,090.5	3,065.6	3,064.2	6.6	5.5	-85.55	3,717.2	931.7	3,809.5	3,797.5	12.01	317.263		
3,200.0	3,190.1	3,159.8	3,158.4	6.8	5.7	-85.69	3,717.5	930.8	3,808.8	3,796.4	12.41	306.966		
3,300.0	3,289.7	3,265.8	3,264.3	7.1	5.9	-85.86	3,717.6	929.5	3,808.1	3,795.3	12.83	296.810		
3,400.0	3,389.2	3,390.4	3,388.9	7.3	6.1	-86.06	3,717.5	927.5	3,807.1	3,793.8	13.29	286.554		
3,500.0	3,488.8	3,492.0	3,490.4	7.6	6.2	-86.22	3,716.8	926.1	3,805.6	3,791.9	13.70	277.795		
3,600.0	3,588.4	3,578.4	3,576.9	7.8	6.4	-86.35	3,716.4	925.2	3,804.3	3,790.2	14.09	270.058		
3,700.0	3,688.0	3,654.2	3,652.6	8.0	6.5	-86.47	3,716.4	924.2	3,803.5	3,789.0	14.46	263.095		
3,800.0	3,787.6	3,754.0	3,752.4	8.3	6.7	-86.63	3,717.0	922.4	3,803.2	3,788.4	14.87	255.758		
3,900.0	3,887.1	3,857.8	3,856.2	8.5	6.9	-86.81	3,717.3	919.9	3,802.6	3,787.3	15.29	248.670		
4,000.0	3,986.7	3,947.2	3,945.6	8.7	7.0	-86.97	3,717.8	918.0	3,802.3	3,786.6	15.69	242.370		
4,100.0	4,086.3	4,051.3	4,049.6	9.0	7.2	-87.15	3,718.6	915.1	3,802.1	3,786.0	16.11	235.991		
4,200.0	4,185.9	4,150.0	4,148.3	9.2	7.4	-87.33	3,719.1	912.5	3,801.7	3,785.2	16.52	230.063		
4,270.2	4,255.7	4,210.9	4,209.2	9.4	7.5	-87.44	3,719.5	910.8	3,801.6	3,784.8	16.80	226.293		
4,300.0	4,285.4	4,237.9	4,236.2	9.4	7.6	-87.49	3,719.7	910.2	3,801.6	3,784.7	16.92	224.712		
4,400.0	4,385.0	4,339.0	4,337.3	9.7	7.7	-87.66	3,720.6	908.4	3,801.8	3,784.5	17.33	219.342		
4,481.3	4,466.0	4,423.3	4,421.5	9.9	7.9	-87.79	3,721.0	907.2	3,801.7	3,784.0	17.67	215.106		
4,500.0	4,484.6	4,436.8	4,435.0	9.9	7.9	-87.81	3,721.1	907.0	3,801.7	3,784.0	17.74	214.279		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 1 (EXISTING) - ENCANA WELL - SURV												Offset Site Error: 0.0 ft	
Survey Program: 100-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)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
4,600.0	4,584.2	4,515.1	4,513.3	10.2	8.0	-87.94	3,722.0	905.6	3,802.2	3,784.1	18.12	209.866	
4,700.0	4,683.8	4,626.6	4,624.8	10.4	8.2	-88.12	3,723.1	904.0	3,802.7	3,784.2	18.55	204.993	
4,800.0	4,783.3	4,719.0	4,717.2	10.6	8.4	-88.27	3,724.1	902.7	3,803.3	3,784.3	18.95	200.701	
4,900.0	4,882.9	4,820.3	4,818.5	10.9	8.6	-88.43	3,725.1	901.4	3,803.8	3,784.5	19.36	196.431	
5,000.0	4,982.5	4,900.0	4,898.2	11.1	8.7	-88.56	3,726.2	900.6	3,804.8	3,785.1	19.74	192.738	
5,100.0	5,082.1	4,990.1	4,988.2	11.3	8.9	-88.70	3,727.8	899.8	3,806.3	3,786.1	20.14	189.035	
5,200.0	5,181.7	5,087.4	5,085.6	11.6	9.1	-88.85	3,729.6	899.1	3,807.7	3,787.2	20.54	185.363	
5,300.0	5,281.2	5,191.2	5,189.3	11.8	9.2	-89.01	3,731.5	898.0	3,809.2	3,788.3	20.96	181.721	
5,400.0	5,380.8	5,300.0	5,298.1	12.0	9.4	-89.19	3,733.3	896.4	3,810.6	3,789.2	21.39	178.141	
5,500.0	5,480.4	5,400.0	5,398.1	12.3	9.6	-89.35	3,734.8	894.9	3,811.8	3,790.0	21.80	174.820	
5,600.0	5,580.0	5,493.2	5,491.3	12.5	9.8	-89.50	3,736.3	893.7	3,813.2	3,791.0	22.20	171.732	
5,700.0	5,679.5	5,584.2	5,582.2	12.8	9.9	-89.64	3,737.9	892.6	3,814.7	3,792.1	22.60	168.778	
5,800.0	5,779.1	5,698.4	5,696.4	13.0	10.2	-89.83	3,740.0	891.0	3,816.3	3,793.2	23.04	165.643	
5,900.0	5,878.7	5,787.3	5,785.3	13.2	10.3	-89.97	3,741.4	890.0	3,817.8	3,794.3	23.43	162.928	
6,000.0	5,978.3	5,885.2	5,883.2	13.5	10.5	-90.13	3,743.2	888.5	3,819.5	3,795.6	23.84	160.194	
6,100.0	6,077.9	5,981.3	5,979.2	13.7	10.7	-90.29	3,745.1	886.5	3,821.2	3,797.0	24.25	157.572	
6,200.0	6,177.4	6,067.9	6,065.8	13.9	10.8	-90.44	3,746.9	884.9	3,823.2	3,798.6	24.64	155.167	
6,300.0	6,277.0	6,200.0	6,197.8	14.2	11.0	-90.64	3,749.4	883.8	3,825.1	3,800.0	25.11	152.359	
6,400.0	6,376.6	6,280.5	6,278.3	14.4	11.2	-90.75	3,750.6	883.8	3,826.7	3,801.2	25.48	150.183	
6,500.0	6,476.2	6,352.4	6,350.2	14.7	11.3	-90.84	3,752.1	884.5	3,829.0	3,803.1	25.84	148.187	
6,600.0	6,575.7	6,444.7	6,442.5	14.9	11.5	-90.95	3,754.5	886.3	3,831.9	3,805.7	26.23	146.079	
6,700.0	6,675.3	6,542.0	6,539.7	15.1	11.6	-91.06	3,756.8	887.5	3,834.5	3,807.9	26.63	143.970	
6,800.0	6,774.9	6,625.8	6,623.5	15.4	11.8	-91.17	3,759.3	888.4	3,837.8	3,810.8	27.01	142.063	
6,900.0	6,874.5	6,738.7	6,736.4	15.6	12.0	-91.32	3,762.4	889.0	3,840.8	3,813.3	27.45	139.938	
6,949.9	6,924.1	6,776.6	6,774.3	15.7	12.1	-91.37	3,763.5	889.1	3,842.3	3,814.7	27.63	139.066	
7,000.0	6,974.0	6,823.0	6,820.6	15.8	12.2	-45.22	3,765.0	889.2	3,841.9	3,814.1	27.76	138.411	
7,050.0	7,023.4	6,882.0	6,879.6	15.9	12.3	-24.79	3,766.8	889.4	3,837.0	3,809.3	27.75	138.288	
7,100.0	7,072.1	6,991.2	6,988.8	16.0	12.4	-15.88	3,769.2	889.7	3,827.5	3,799.8	27.66	138.366	
7,150.0	7,119.7	7,050.9	7,048.4	16.2	12.6	-11.07	3,769.9	890.1	3,813.2	3,785.8	27.34	139.496	
7,200.0	7,165.9	7,100.0	7,097.5	16.3	12.6	-8.06	3,770.3	890.6	3,794.7	3,767.8	26.84	141.379	
7,250.0	7,210.2	7,141.8	7,139.3	16.4	12.7	-5.97	3,770.7	891.0	3,772.2	3,746.0	26.19	144.022	
7,300.0	7,252.5	7,178.9	7,176.4	16.5	12.8	-4.39	3,771.1	891.3	3,746.0	3,720.6	25.40	147.453	
7,350.0	7,292.2	7,222.9	7,220.4	16.7	12.8	-3.11	3,771.6	891.5	3,716.2	3,691.7	24.51	151.610	
7,400.0	7,329.2	7,276.4	7,273.9	16.8	12.9	-1.98	3,772.1	891.6	3,683.0	3,659.4	23.53	156.500	
7,450.0	7,363.2	7,316.0	7,313.5	17.0	13.0	-0.89	3,772.3	891.5	3,646.5	3,624.0	22.46	162.375	
7,500.0	7,393.8	7,343.9	7,341.4	17.3	13.1	0.26	3,772.5	891.4	3,607.2	3,585.9	21.32	169.212	
7,550.0	7,421.0	7,368.7	7,366.2	17.5	13.1	1.57	3,772.6	891.3	3,565.4	3,545.2	20.17	176.809	
7,600.0	7,444.3	7,390.2	7,387.7	17.8	13.1	3.21	3,772.8	891.2	3,521.4	3,502.3	19.05	184.811	
7,650.0	7,463.8	7,408.5	7,406.0	18.2	13.2	5.48	3,772.9	891.1	3,475.5	3,457.4	18.07	192.324	
7,700.0	7,479.2	7,423.4	7,420.9	18.5	13.2	9.02	3,773.1	891.0	3,428.1	3,410.7	17.39	197.100	
7,750.0	7,490.4	7,434.4	7,431.9	18.9	13.2	15.49	3,773.1	890.9	3,379.5	3,362.0	17.51	192.978	
7,800.0	7,497.4	7,441.4	7,438.9	19.3	13.2	30.63	3,773.2	890.9	3,330.2	3,309.8	20.33	163.795	
7,850.0	7,500.0	7,444.3	7,441.8	19.8	13.2	76.22	3,773.2	890.9	3,280.4	3,251.1	29.23	112.225	
7,855.2	7,500.0	7,444.4	7,441.9	19.9	13.2	83.38	3,773.2	890.9	3,275.2	3,245.5	29.70	110.273	
7,900.0	7,500.0	7,444.7	7,442.2	20.3	13.2	83.47	3,773.2	890.9	3,230.5	3,200.3	30.22	106.906	
8,000.0	7,500.0	7,445.6	7,443.1	21.3	13.2	83.67	3,773.2	890.9	3,130.8	3,099.3	31.44	99.574	
8,100.0	7,500.0	7,446.4	7,443.9	22.5	13.2	83.87	3,773.3	890.9	3,031.1	2,998.3	32.75	92.563	
8,200.0	7,500.0	7,447.2	7,444.7	23.7	13.2	84.07	3,773.3	890.8	2,931.4	2,897.3	34.12	85.923	
8,300.0	7,500.0	7,448.1	7,445.6	25.0	13.2	84.28	3,773.3	890.8	2,831.7	2,796.2	35.54	79.674	
8,400.0	7,500.0	7,448.9	7,446.4	26.3	13.2	84.48	3,773.3	890.8	2,732.1	2,695.1	37.01	73.819	
8,500.0	7,500.0	7,449.7	7,447.3	27.7	13.2	84.68	3,773.3	890.8	2,632.5	2,593.9	38.52	68.346	
8,600.0	7,500.0	7,450.6	7,448.1	29.1	13.2	84.89	3,773.3	890.8	2,532.9	2,492.8	40.05	63.236	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 1 (EXISTING) - ENCANA WELL - SURV												Offset Site Error:	0.0 ft
Survey Program: 100-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
8,700.0	7,500.0	7,451.4	7,448.9	30.5	13.2	85.09	3,773.3	890.8	2,433.3	2,391.7	41.62	58.468	
8,800.0	7,500.0	7,452.3	7,449.8	32.0	13.2	85.30	3,773.3	890.8	2,333.8	2,290.6	43.20	54.019	
8,900.0	7,500.0	7,453.1	7,450.6	33.5	13.2	85.51	3,773.3	890.8	2,234.3	2,189.5	44.81	49.865	
9,000.0	7,500.0	7,454.0	7,451.5	35.1	13.3	85.72	3,773.3	890.8	2,134.9	2,088.5	46.43	45.983	
9,100.0	7,500.0	7,454.8	7,452.4	36.6	13.3	85.92	3,773.3	890.8	2,035.5	1,987.5	48.06	42.352	
9,200.0	7,500.0	7,455.7	7,453.2	38.2	13.3	86.13	3,773.3	890.8	1,936.2	1,886.5	49.71	38.951	
9,300.0	7,500.0	7,456.6	7,454.1	39.8	13.3	86.34	3,773.3	890.8	1,837.0	1,785.6	51.37	35.763	
9,400.0	7,500.0	7,457.4	7,454.9	41.4	13.3	86.56	3,773.4	890.8	1,737.9	1,684.8	53.03	32.770	
9,500.0	7,500.0	7,458.3	7,455.8	43.0	13.3	86.77	3,773.4	890.8	1,638.8	1,584.1	54.71	29.956	
9,600.0	7,500.0	7,459.2	7,456.7	44.6	13.3	86.98	3,773.4	890.8	1,539.9	1,483.5	56.39	27.309	
9,700.0	7,500.0	7,460.0	7,457.5	46.2	13.3	87.19	3,773.4	890.8	1,441.2	1,383.1	58.08	24.815	
9,800.0	7,500.0	7,460.9	7,458.4	47.9	13.3	87.41	3,773.4	890.8	1,342.6	1,282.8	59.77	22.463	
9,900.0	7,500.0	7,461.8	7,459.3	49.5	13.3	87.62	3,773.4	890.8	1,244.3	1,182.8	61.47	20.242	
10,000.0	7,500.0	7,462.7	7,460.2	51.2	13.3	87.84	3,773.4	890.8	1,146.2	1,083.0	63.17	18.144	
10,046.2	7,500.0	7,463.1	7,460.6	51.9	13.3	87.94	3,773.4	890.8	1,101.0	1,037.1	63.96	17.214	
10,100.0	7,500.0	7,463.5	7,461.1	52.8	13.3	88.13	3,773.4	890.8	1,048.5	983.8	64.78	16.185	
10,200.0	7,500.0	7,464.4	7,462.0	54.5	13.3	88.45	3,773.4	890.8	951.8	885.5	66.31	14.355	
10,300.0	7,500.0	7,465.3	7,462.9	56.1	13.3	88.72	3,773.4	890.8	856.3	788.5	67.81	12.627	
10,400.0	7,500.0	7,466.3	7,463.8	57.8	13.3	88.96	3,773.4	890.7	762.6	693.3	69.31	11.003	
10,500.0	7,500.0	7,467.2	7,464.7	59.5	13.3	89.18	3,773.4	890.7	671.5	600.7	70.79	9.486	
10,600.0	7,500.0	7,468.1	7,465.7	61.1	13.3	89.38	3,773.4	890.7	584.2	512.0	72.25	8.086	
10,700.0	7,500.0	7,469.1	7,466.6	62.8	13.3	89.57	3,773.5	890.7	502.8	429.1	73.71	6.821	
10,800.0	7,500.0	7,470.0	7,467.6	64.4	13.3	89.75	3,773.5	890.7	430.5	355.4	75.14	5.729	
10,906.2	7,500.0	7,471.1	7,468.6	66.2	13.3	89.93	3,773.5	890.7	369.9	293.3	76.65	4.826	
11,000.0	7,500.0	7,472.0	7,469.5	67.7	13.3	90.09	3,773.5	890.7	336.7	258.4	78.27	4.301	
11,078.4	7,500.0	7,472.8	7,470.3	69.0	13.3	90.22	3,773.5	890.7	327.4	247.8	79.63	4.112 CC, ES	
11,100.0	7,500.0	7,473.0	7,470.5	69.4	13.3	90.26	3,773.5	890.7	328.1	248.1	80.00	4.102 SF	
11,200.0	7,500.0	7,474.0	7,471.5	71.0	13.3	90.43	3,773.5	890.7	349.3	267.5	81.73	4.273	
11,256.2	7,500.0	7,474.5	7,472.0	72.0	13.3	90.53	3,773.5	890.7	372.6	289.9	82.70	4.505	
11,300.0	7,500.0	7,474.9	7,472.5	72.7	13.3	90.60	3,773.5	890.7	395.2	311.6	83.60	4.728	
11,400.0	7,500.0	7,475.9	7,473.4	74.4	13.3	90.76	3,773.5	890.7	457.6	372.0	85.62	5.345	
11,500.0	7,500.0	7,476.9	7,474.4	76.1	13.3	90.91	3,773.5	890.7	530.6	442.9	87.63	6.055	
11,600.0	7,500.0	7,477.9	7,475.4	77.8	13.3	91.05	3,773.5	890.7	610.2	520.6	89.62	6.809	
11,700.0	7,500.0	7,478.9	7,476.4	79.5	13.3	91.18	3,773.5	890.7	694.3	602.7	91.58	7.581	
11,800.0	7,500.0	7,479.8	7,477.3	81.2	13.3	91.30	3,773.6	890.7	781.3	687.8	93.53	8.354	
11,900.0	7,500.0	7,480.8	7,478.3	82.9	13.3	91.40	3,773.6	890.7	870.4	775.0	95.45	9.119	
12,000.0	7,500.0	7,481.7	7,479.2	84.7	13.3	91.48	3,773.6	890.7	960.9	863.6	97.35	9.871	
12,100.0	7,500.0	7,482.7	7,480.2	86.4	13.3	91.56	3,773.6	890.7	1,052.5	953.3	99.22	10.608	
12,169.2	7,500.0	7,483.3	7,480.8	87.6	13.3	91.60	3,773.6	890.7	1,116.4	1,015.9	100.51	11.108	
12,200.0	7,500.0	7,483.6	7,481.1	88.1	13.3	91.64	3,773.6	890.7	1,144.9	1,043.9	101.04	11.332	
12,300.0	7,500.0	7,484.6	7,482.1	89.8	13.3	91.77	3,773.6	890.7	1,238.4	1,135.6	102.77	12.050	
12,400.0	7,500.0	7,485.5	7,483.0	91.6	13.3	91.89	3,773.6	890.6	1,332.8	1,228.3	104.50	12.754	
12,500.0	7,500.0	7,486.4	7,484.0	93.3	13.3	92.02	3,773.6	890.6	1,427.9	1,321.7	106.23	13.442	
12,600.0	7,500.0	7,487.4	7,484.9	95.0	13.3	92.15	3,773.6	890.6	1,523.7	1,415.7	107.96	14.113	
12,700.0	7,500.0	7,488.4	7,485.9	96.8	13.3	92.28	3,773.6	890.6	1,620.0	1,510.3	109.69	14.768	
12,800.0	7,500.0	7,489.3	7,486.8	98.5	13.3	92.41	3,773.6	890.6	1,716.7	1,605.3	111.42	15.407	
12,900.0	7,500.0	7,490.3	7,487.8	100.2	13.3	92.54	3,773.7	890.6	1,813.7	1,700.6	113.15	16.029	
13,000.0	7,500.0	7,491.2	7,488.8	102.0	13.3	92.67	3,773.7	890.6	1,911.1	1,796.2	114.88	16.636	
13,100.0	7,500.0	7,492.2	7,489.7	103.7	13.3	92.80	3,773.7	890.6	2,008.7	1,892.1	116.61	17.226	
13,200.0	7,500.0	7,493.2	7,490.7	105.4	13.3	92.93	3,773.7	890.6	2,106.6	1,988.2	118.34	17.802	
13,300.0	7,500.0	7,494.1	7,491.7	107.2	13.3	93.06	3,773.7	890.6	2,204.6	2,084.6	120.06	18.362	
13,400.0	7,500.0	7,495.1	7,492.6	108.9	13.3	93.19	3,773.7	890.6	2,302.8	2,181.0	121.79	18.908	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 1 (EXISTING) - ENCANA WELL - SURV													Offset Site Error: 0.0 ft
Survey Program: 100-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	
13,500.0	7,500.0	7,496.1	7,493.6	110.7	13.3	93.32	3,773.7	890.6	2,401.2	2,277.7	123.52	19.440	
13,600.0	7,500.0	7,497.1	7,494.6	112.4	13.3	93.46	3,773.7	890.6	2,499.7	2,374.4	125.24	19.959	
13,700.0	7,500.0	7,498.1	7,495.6	114.1	13.3	93.59	3,773.7	890.6	2,598.3	2,471.3	126.97	20.464	
13,800.0	7,500.0	7,499.1	7,496.6	115.9	13.3	93.72	3,773.7	890.6	2,697.0	2,568.3	128.69	20.957	
13,900.0	7,500.0	7,500.0	7,497.6	117.6	13.3	93.85	3,773.7	890.6	2,795.8	2,665.4	130.41	21.438	
14,000.0	7,500.0	7,501.0	7,498.5	119.4	13.3	93.98	3,773.8	890.6	2,894.6	2,762.5	132.14	21.906	
14,100.0	7,500.0	7,502.0	7,499.5	121.1	13.3	94.12	3,773.8	890.6	2,993.6	2,859.7	133.86	22.364	
14,200.0	7,500.0	7,503.0	7,500.5	122.8	13.3	94.25	3,773.8	890.6	3,092.6	2,957.0	135.58	22.810	
14,300.0	7,500.0	7,503.9	7,501.5	124.6	13.3	94.38	3,773.8	890.6	3,191.7	3,054.4	137.30	23.246	
14,400.0	7,500.0	7,504.9	7,502.5	126.3	13.3	94.51	3,773.8	890.5	3,290.8	3,151.8	139.02	23.672	
14,455.0	7,500.0	7,505.5	7,503.0	127.3	13.3	94.59	3,773.8	890.5	3,345.4	3,205.4	139.96	23.902	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 13-6 (EXISTING) - ENCANA WELL - SU													Offset Site Error:	0.0 ft
Survey Program: 765-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	15.06	3,670.5	987.8	3,801.1					
100.0	100.0	85.0	85.0	0.2	0.1	15.06	3,670.5	987.8	3,801.1	3,800.8	0.30	N/A		
200.0	200.0	185.0	185.0	0.3	0.3	15.06	3,670.5	987.8	3,801.1	3,800.4	0.64	5,915.829		
300.0	300.0	285.0	285.0	0.5	0.5	15.06	3,670.5	987.8	3,801.1	3,800.1	0.99	3,847.470		
400.0	400.0	385.0	385.0	0.7	0.7	15.06	3,670.5	987.8	3,801.1	3,799.7	1.33	2,850.756		
500.0	500.0	485.0	485.0	0.8	0.8	15.06	3,670.5	987.8	3,801.1	3,799.4	1.68	2,264.200		
600.0	600.0	585.0	585.0	1.0	1.0	-81.35	3,670.5	987.8	3,800.9	3,798.9	2.02	1,877.365		
700.0	700.0	685.0	685.0	1.2	1.2	-81.39	3,670.5	987.8	3,800.6	3,798.2	2.37	1,601.638		
800.0	799.9	780.9	780.9	1.4	1.3	-81.46	3,670.5	987.8	3,799.9	3,797.2	2.72	1,396.819		
900.0	899.7	874.7	874.7	1.6	1.5	-81.56	3,670.8	987.5	3,799.2	3,796.1	3.08	1,235.195		
1,000.0	999.4	979.7	979.7	1.8	1.7	-81.70	3,671.0	986.7	3,798.1	3,794.6	3.46	1,096.659		
1,026.5	1,025.7	996.5	996.5	1.8	1.7	-81.73	3,671.1	986.5	3,797.8	3,794.2	3.55	1,070.324		
1,100.0	1,098.9	1,035.9	1,035.9	2.0	1.8	-81.80	3,671.6	985.8	3,797.4	3,793.6	3.77	1,006.108		
1,103.2	1,102.2	1,037.5	1,037.5	2.0	1.8	-81.80	3,671.6	985.7	3,797.4	3,793.6	3.78	1,003.494		
1,200.0	1,198.5	1,074.0	1,074.0	2.2	1.8	-81.87	3,672.6	984.6	3,798.1	3,794.0	4.06	935.717		
1,300.0	1,298.1	1,137.0	1,136.8	2.4	2.0	-82.00	3,675.4	981.9	3,800.1	3,795.7	4.39	864.819		
1,400.0	1,397.7	1,249.8	1,249.1	2.7	2.2	-82.31	3,682.1	973.4	3,802.8	3,798.0	4.84	786.127		
1,500.0	1,497.3	1,333.2	1,331.9	2.9	2.4	-82.56	3,687.3	964.8	3,805.3	3,800.0	5.24	726.096		
1,600.0	1,596.8	1,437.5	1,435.1	3.1	2.6	-82.93	3,694.9	951.5	3,808.3	3,802.6	5.72	666.238		
1,700.0	1,696.4	1,535.4	1,531.7	3.3	2.9	-83.29	3,702.2	937.1	3,811.1	3,804.9	6.20	614.409		
1,800.0	1,796.0	1,610.6	1,605.7	3.6	3.1	-83.58	3,707.7	925.7	3,814.1	3,807.5	6.64	574.526		
1,900.0	1,895.6	1,692.3	1,686.2	3.8	3.3	-83.89	3,714.6	913.6	3,818.2	3,811.1	7.10	537.530		
2,000.0	1,995.2	1,775.2	1,767.7	4.0	3.6	-84.23	3,722.0	899.9	3,822.6	3,815.0	7.59	503.339		
2,100.0	2,094.7	1,847.2	1,838.2	4.3	3.9	-84.53	3,728.8	887.2	3,827.5	3,819.5	8.06	474.732		
2,200.0	2,194.3	1,906.2	1,895.9	4.5	4.1	-84.78	3,735.0	876.6	3,833.6	3,825.1	8.50	451.274		
2,300.0	2,293.9	2,003.3	1,990.8	4.7	4.4	-85.20	3,746.0	858.9	3,840.6	3,831.5	9.06	423.670		
2,400.0	2,393.5	2,074.0	2,059.7	5.0	4.7	-85.52	3,754.1	845.3	3,847.8	3,838.2	9.56	402.409		
2,500.0	2,493.0	2,142.9	2,126.5	5.2	5.0	-85.84	3,762.8	831.1	3,856.0	3,845.9	10.06	383.112		
2,600.0	2,592.6	2,344.7	2,322.1	5.4	5.9	-86.80	3,786.8	787.8	3,864.3	3,853.2	11.11	347.679		
2,700.0	2,692.2	2,415.2	2,390.3	5.7	6.2	-87.15	3,794.1	771.7	3,870.7	3,859.1	11.64	332.417		
2,800.0	2,791.8	2,480.8	2,453.9	5.9	6.5	-87.46	3,801.5	757.1	3,878.3	3,866.1	12.15	319.161		
2,900.0	2,891.4	2,549.6	2,520.5	6.1	6.8	-87.79	3,809.6	742.0	3,886.6	3,874.0	12.67	306.752		
3,000.0	2,990.9	2,612.7	2,581.7	6.4	7.1	-88.09	3,817.5	728.4	3,896.0	3,882.8	13.17	295.911		
3,100.0	3,090.5	2,757.0	2,721.5	6.6	7.7	-88.76	3,835.4	697.9	3,905.7	3,891.7	13.98	279.315		
3,200.0	3,190.1	2,820.0	2,782.8	6.8	8.0	-89.04	3,842.9	685.0	3,915.1	3,900.6	14.47	270.647		
3,300.0	3,289.7	2,885.0	2,845.9	7.1	8.3	-89.33	3,851.2	672.1	3,925.6	3,910.6	14.95	262.548		
3,400.0	3,389.2	2,970.8	2,929.3	7.3	8.6	-89.71	3,862.3	655.3	3,936.6	3,921.1	15.51	253.733		
3,500.0	3,488.8	3,055.3	3,011.5	7.6	9.0	-90.07	3,873.6	639.3	3,948.2	3,932.1	16.07	245.752		
3,600.0	3,588.4	3,224.3	3,175.9	7.8	9.7	-90.79	3,895.8	607.2	3,960.2	3,943.3	16.93	233.909		
3,700.0	3,688.0	3,358.0	3,306.3	8.0	10.3	-91.35	3,909.9	581.1	3,969.3	3,951.6	17.67	224.661		
3,800.0	3,787.6	3,410.7	3,357.7	8.3	10.5	-91.58	3,915.8	570.8	3,979.4	3,961.3	18.09	219.935		
3,900.0	3,887.1	3,509.0	3,453.7	8.5	10.9	-91.97	3,927.4	553.4	3,990.5	3,971.8	18.67	213.791		
4,000.0	3,986.7	3,600.7	3,543.4	8.7	11.3	-92.32	3,938.0	537.9	4,001.5	3,982.3	19.20	208.398		
4,100.0	4,086.3	3,842.3	3,781.0	9.0	12.2	-93.17	3,962.4	501.4	4,011.9	3,991.7	20.17	198.926		
4,200.0	4,185.9	3,909.5	3,847.0	9.2	12.4	-93.42	3,967.7	490.3	4,019.8	3,999.2	20.62	194.914		
4,300.0	4,285.4	3,944.0	3,880.9	9.4	12.5	-93.55	3,971.0	484.4	4,029.3	4,008.3	20.97	192.136		
4,400.0	4,385.0	3,987.4	3,923.4	9.7	12.7	-93.72	3,975.7	477.1	4,040.2	4,018.9	21.35	189.258		
4,500.0	4,484.6	4,045.4	3,980.1	9.9	13.0	-93.94	3,982.7	466.9	4,052.5	4,030.8	21.79	185.967		
4,600.0	4,584.2	4,121.6	4,054.1	10.2	13.3	-94.26	3,992.4	451.3	4,065.6	4,043.3	22.32	182.186		
4,700.0	4,683.8	4,360.3	4,285.6	10.4	14.4	-95.30	4,018.3	399.8	4,076.8	4,053.3	23.46	173.774		
4,800.0	4,783.3	4,590.5	4,509.8	10.6	15.4	-96.28	4,036.2	350.9	4,085.7	4,061.2	24.55	166.415		
4,900.0	4,882.9	4,672.1	4,589.4	10.9	15.7	-96.62	4,041.4	333.4	4,093.4	4,068.3	25.08	163.208		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 13-6 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 765-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	
5,000.0	4,982.5	4,721.2	4,637.4	11.1	15.9	-96.82	4,044.8	323.6	4,101.8	4,076.4	25.48	160.963	
5,100.0	5,082.1	4,752.0	4,667.5	11.3	16.1	-96.94	4,047.3	317.7	4,111.8	4,086.0	25.82	159.237	
5,200.0	5,181.7	4,814.0	4,728.1	11.6	16.3	-97.18	4,053.1	306.2	4,123.0	4,096.7	26.26	157.023	
5,300.0	5,281.2	4,850.6	4,764.0	11.8	16.5	-97.32	4,057.0	299.5	4,135.6	4,109.0	26.61	155.429	
5,400.0	5,380.8	4,892.8	4,805.2	12.0	16.6	-97.47	4,062.2	292.1	4,149.7	4,122.7	26.97	153.841	
5,500.0	5,480.4	4,954.9	4,865.7	12.3	16.9	-97.70	4,070.4	281.2	4,164.9	4,137.5	27.40	151.998	
5,600.0	5,580.0	5,034.4	4,943.2	12.5	17.2	-97.99	4,081.3	267.0	4,180.9	4,153.0	27.88	149.950	
5,700.0	5,679.5	5,119.6	5,026.3	12.8	17.6	-98.29	4,093.3	252.5	4,197.3	4,168.9	28.36	147.977	
5,800.0	5,779.1	5,198.1	5,102.9	13.0	17.9	-98.55	4,104.7	239.9	4,214.1	4,185.3	28.82	146.223	
5,900.0	5,878.7	5,279.2	5,181.0	13.2	18.2	-98.81	4,116.1	227.5	4,230.5	4,201.7	29.29	144.579	
6,000.0	5,978.3	5,359.3	5,261.6	13.5	18.5	-99.08	4,127.5	215.1	4,246.9	4,218.1	29.76	142.935	
6,100.0	6,077.9	5,439.4	5,341.7	13.7	18.8	-99.34	4,138.9	202.7	4,263.3	4,234.5	30.23	141.291	
6,200.0	6,177.4	5,519.5	5,421.8	13.9	19.1	-99.60	4,150.3	190.3	4,279.7	4,250.9	30.70	139.647	
6,300.0	6,277.0	5,599.6	5,501.9	14.2	19.4	-99.86	4,161.7	177.9	4,296.1	4,267.3	31.17	138.003	
6,400.0	6,376.6	5,679.7	5,582.0	14.4	19.7	-100.12	4,173.1	165.5	4,312.5	4,283.7	31.64	136.359	
6,500.0	6,476.2	5,759.8	5,662.1	14.7	20.0	-100.38	4,184.5	153.1	4,328.9	4,300.1	32.11	134.715	
6,600.0	6,575.7	5,839.9	5,742.2	14.9	20.3	-100.64	4,195.9	140.7	4,345.3	4,316.5	32.58	133.071	
6,700.0	6,675.3	5,919.9	5,822.2	15.1	20.6	-100.90	4,207.3	128.3	4,361.7	4,332.9	33.05	131.427	
6,800.0	6,774.9	6,000.0	5,903.3	15.4	20.9	-101.16	4,218.7	115.9	4,378.1	4,349.3	33.52	129.783	
6,900.0	6,874.5	6,080.1	5,983.4	15.6	21.2	-101.42	4,230.1	103.5	4,394.5	4,365.7	33.99	128.139	
6,949.9	6,924.1	6,100.0	6,003.3	15.7	21.3	-101.50	4,234.5	100.0	4,400.0	4,371.2	34.15	127.491	
7,000.0	6,974.0	6,180.1	6,083.4	15.8	21.4	-101.58	4,238.9	96.5	4,405.5	4,376.7	34.31	126.843	
7,050.0	7,023.4	6,260.2	6,163.5	15.9	21.5	-101.66	4,243.3	93.0	4,411.0	4,382.2	34.47	126.195	
7,100.0	7,072.1	6,340.3	6,243.6	16.0	21.6	-101.74	4,247.7	89.5	4,416.5	4,387.7	34.63	125.547	
7,150.0	7,119.7	6,420.4	6,323.7	16.2	21.8	-101.82	4,252.1	86.0	4,422.0	4,393.2	34.79	124.899	
7,200.0	7,165.9	6,500.5	6,403.8	16.3	21.9	-101.90	4,256.5	82.5	4,427.5	4,398.7	34.95	124.251	
7,250.0	7,210.2	6,580.6	6,483.9	16.4	22.0	-101.98	4,260.9	79.0	4,433.0	4,404.2	35.11	123.603	
7,300.0	7,252.5	6,660.7	6,564.0	16.5	22.1	-102.06	4,265.3	75.5	4,438.5	4,409.7	35.27	122.955	
7,350.0	7,292.2	6,740.8	6,644.1	16.7	22.3	-102.14	4,270.7	72.0	4,444.0	4,415.2	35.43	122.307	
7,400.0	7,329.2	6,820.9	6,724.2	16.8	22.4	-102.22	4,275.1	68.5	4,449.5	4,420.7	35.59	121.659	
7,450.0	7,363.2	6,901.0	6,804.3	17.0	22.6	-102.30	4,280.5	65.0	4,455.0	4,426.2	35.75	121.011	
7,500.0	7,393.8	6,981.1	6,884.4	17.3	22.8	-102.38	4,285.9	61.5	4,460.5	4,431.7	35.91	120.363	
7,550.0	7,421.0	7,061.2	6,964.5	17.5	23.0	-102.46	4,291.3	58.0	4,466.0	4,437.2	36.07	119.715	
7,600.0	7,444.3	7,141.3	7,044.6	17.8	23.2	-102.54	4,296.7	54.5	4,471.5	4,442.7	36.23	119.067	
7,650.0	7,463.8	7,221.4	7,124.7	18.2	23.4	-102.62	4,302.1	51.0	4,477.0	4,448.2	36.39	118.419	
7,700.0	7,479.2	7,301.5	7,204.8	18.5	23.6	-102.70	4,307.5	47.5	4,482.5	4,453.7	36.55	117.771	
7,750.0	7,490.4	7,381.6	7,284.9	18.9	23.8	-102.78	4,312.9	44.0	4,488.0	4,459.2	36.71	117.123	
7,800.0	7,497.4	7,461.7	7,365.0	19.3	24.0	-102.86	4,318.3	40.5	4,493.5	4,464.7	36.87	116.475	
7,850.0	7,500.0	7,541.8	7,445.1	19.8	24.2	-102.94	4,323.7	37.0	4,499.0	4,470.2	37.03	115.827	
7,855.2	7,500.0	7,561.9	7,465.2	19.9	24.3	-102.96	4,328.1	33.5	4,504.5	4,475.7	37.19	115.179	
7,900.0	7,500.0	7,642.0	7,546.3	20.3	24.4	-103.04	4,333.5	30.0	4,510.0	4,481.2	37.35	114.531	
8,000.0	7,500.0	7,722.1	7,626.4	21.3	24.6	-103.12	4,338.9	26.5	4,515.5	4,486.7	37.51	113.883	
8,100.0	7,500.0	7,802.2	7,706.5	22.5	24.8	-103.20	4,344.3	23.0	4,521.0	4,492.2	37.67	113.235	
8,200.0	7,500.0	7,882.3	7,786.6	23.7	25.0	-103.28	4,349.7	19.5	4,526.5	4,497.7	37.83	112.587	
8,300.0	7,500.0	7,962.4	7,866.7	25.0	25.2	-103.36	4,355.1	16.0	4,532.0	4,503.2	37.99	111.939	
8,400.0	7,500.0	8,042.5	7,946.8	26.3	25.4	-103.44	4,360.5	12.5	4,537.5	4,508.7	38.15	111.291	
8,500.0	7,500.0	8,122.6	8,026.9	27.7	25.6	-103.52	4,365.9	9.0	4,543.0	4,514.2	38.31	110.643	
8,600.0	7,500.0	8,202.7	8,107.0	29.1	25.8	-103.60	4,371.3	5.5	4,548.5	4,519.7	38.47	110.000	
8,700.0	7,500.0	8,282.8	8,187.1	30.5	26.0	-103.68	4,376.7	2.0	4,554.0	4,525.2	38.63	109.352	
8,800.0	7,500.0	8,362.9	8,267.2	32.0	26.2	-103.76	4,382.1	-1.5	4,559.5	4,530.7	38.79	108.704	
8,900.0	7,500.0	8,443.0	8,347.3	33.5	26.4	-103.84	4,387.5	-3.0	4,565.0	4,536.2	38.95	108.056	
9,000.0	7,500.0	8,523.1	8,427.4	35.1	26.6	-103.92	4,392.9	-4.5	4,570.5	4,541.7	39.11	107.408	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 13-6 (EXISTING) - ENCANA WELL - SU													Offset Site Error: 0.0 ft	
Survey Program: 765-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		
9,100.0	7,500.0	7,539.5	7,421.4	36.6	24.1	-84.56	4,224.5	-6.5	2,553.6	2,502.5	51.08	49.995		
9,200.0	7,500.0	7,541.9	7,423.8	38.2	24.1	-84.77	4,224.6	-6.5	2,457.3	2,404.5	52.73	46.602		
9,300.0	7,500.0	7,544.3	7,426.3	39.8	24.1	-84.98	4,224.6	-6.5	2,361.2	2,306.8	54.39	43.413		
9,400.0	7,500.0	7,546.8	7,428.7	41.4	24.1	-85.18	4,224.7	-6.5	2,265.5	2,209.5	56.06	40.412		
9,500.0	7,500.0	7,549.2	7,431.2	43.0	24.1	-85.40	4,224.8	-6.5	2,170.2	2,112.5	57.74	37.586		
9,600.0	7,500.0	7,551.8	7,433.7	44.6	24.1	-85.61	4,224.8	-6.5	2,075.3	2,015.9	59.43	34.923		
9,700.0	7,500.0	7,554.3	7,436.2	46.2	24.1	-85.83	4,224.9	-6.5	1,980.9	1,919.8	61.12	32.412		
9,800.0	7,500.0	7,556.9	7,438.8	47.9	24.1	-86.04	4,224.9	-6.5	1,887.1	1,824.3	62.82	30.042		
9,900.0	7,500.0	7,559.4	7,441.4	49.5	24.1	-86.27	4,225.0	-6.5	1,794.0	1,729.5	64.52	27.805		
10,000.0	7,500.0	7,562.1	7,444.0	51.2	24.1	-86.49	4,225.1	-6.5	1,701.6	1,635.4	66.23	25.694		
10,046.2	7,500.0	7,563.3	7,445.2	51.9	24.1	-86.59	4,225.1	-6.5	1,659.3	1,592.3	67.02	24.759		
10,100.0	7,500.0	7,564.7	7,446.7	52.8	24.1	-86.65	4,225.2	-6.5	1,610.1	1,542.1	67.94	23.700		
10,200.0	7,500.0	7,567.4	7,449.3	54.5	24.1	-86.76	4,225.2	-6.5	1,518.9	1,449.3	69.64	21.812		
10,300.0	7,500.0	7,570.1	7,452.0	56.1	24.1	-86.89	4,225.3	-6.5	1,428.2	1,356.8	71.33	20.022		
10,400.0	7,500.0	7,572.8	7,454.8	57.8	24.1	-87.04	4,225.4	-6.5	1,337.9	1,264.9	73.01	18.325		
10,500.0	7,500.0	7,575.6	7,457.5	59.5	24.1	-87.21	4,225.4	-6.5	1,248.3	1,173.7	74.68	16.716		
10,600.0	7,500.0	7,578.3	7,460.3	61.1	24.1	-87.40	4,225.5	-6.5	1,159.6	1,083.3	76.34	15.190		
10,700.0	7,500.0	7,581.1	7,463.1	62.8	24.1	-87.62	4,225.6	-6.5	1,072.0	994.0	77.99	13.745		
10,800.0	7,500.0	7,583.9	7,465.8	64.4	24.1	-87.86	4,225.7	-6.5	985.8	906.1	79.62	12.380		
10,906.2	7,500.0	7,586.9	7,468.8	66.2	24.1	-88.14	4,225.7	-6.5	896.2	814.9	81.34	11.018		
11,000.0	7,500.0	7,589.5	7,471.5	67.7	24.1	-88.44	4,225.8	-6.4	819.9	737.0	82.98	9.882		
11,100.0	7,500.0	7,592.4	7,474.3	69.4	24.1	-88.77	4,225.9	-6.4	743.0	658.3	84.71	8.771		
11,200.0	7,500.0	7,595.2	7,477.2	71.0	24.1	-89.10	4,226.0	-6.4	672.1	585.7	86.45	7.775		
11,256.2	7,500.0	7,596.8	7,478.8	72.0	24.1	-89.28	4,226.0	-6.4	635.8	548.3	87.43	7.272		
11,300.0	7,500.0	7,598.1	7,480.0	72.7	24.1	-89.43	4,226.1	-6.4	609.6	521.4	88.25	6.908		
11,400.0	7,500.0	7,601.0	7,482.9	74.4	24.1	-89.77	4,226.1	-6.4	559.5	469.4	90.09	6.210		
11,500.0	7,500.0	7,604.0	7,485.9	76.1	24.1	-90.10	4,226.2	-6.4	525.5	433.6	91.92	5.717		
11,600.0	7,500.0	7,607.0	7,488.9	77.8	24.1	-90.43	4,226.3	-6.4	510.9	417.2	93.72	5.451		
11,619.6	7,500.0	7,607.5	7,489.5	78.1	24.1	-90.50	4,226.3	-6.3	510.5	416.4	94.07	5.427 CC, ES		
11,700.0	7,500.0	7,610.0	7,491.9	79.5	24.1	-90.78	4,226.4	-6.3	517.3	421.8	95.49	5.417 SF		
11,800.0	7,500.0	7,613.1	7,495.0	81.2	24.2	-91.13	4,226.5	-6.3	544.1	446.8	97.24	5.595		
11,900.0	7,500.0	7,616.2	7,498.1	82.9	24.2	-91.49	4,226.6	-6.3	588.3	489.4	98.97	5.945		
12,000.0	7,500.0	7,619.4	7,501.3	84.7	24.2	-91.88	4,226.7	-6.3	646.5	545.9	100.66	6.423		
12,100.0	7,500.0	7,622.6	7,504.5	86.4	24.2	-92.29	4,226.8	-6.2	715.3	612.9	102.33	6.990		
12,169.2	7,500.0	7,624.9	7,506.8	87.6	24.2	-92.59	4,226.8	-6.2	767.5	664.0	103.47	7.418		
12,200.0	7,500.0	7,625.9	7,507.8	88.1	24.2	-92.71	4,226.9	-6.2	791.7	687.7	103.99	7.613		
12,300.0	7,500.0	7,629.2	7,511.2	89.8	24.2	-93.11	4,227.0	-6.2	873.1	767.5	105.69	8.261		
12,400.0	7,500.0	7,631.0	7,512.9	91.6	24.2	-93.32	4,227.0	-6.2	958.1	850.7	107.41	8.920		
12,500.0	7,500.0	7,631.0	7,512.9	93.3	24.2	-93.32	4,227.0	-6.2	1,045.7	936.6	109.14	9.581		
12,600.0	7,500.0	7,631.0	7,512.9	95.0	24.2	-93.32	4,227.0	-6.2	1,135.4	1,024.5	110.88	10.240		
12,700.0	7,500.0	7,631.0	7,512.9	96.8	24.2	-93.32	4,227.0	-6.2	1,226.6	1,114.0	112.61	10.893		
12,800.0	7,500.0	7,631.0	7,512.9	98.5	24.2	-93.32	4,227.0	-6.2	1,319.2	1,204.8	114.35	11.536		
12,900.0	7,500.0	7,643.4	7,525.3	100.2	24.2	-94.78	4,227.4	-6.1	1,412.6	1,296.8	115.89	12.190		
13,000.0	7,500.0	7,645.5	7,527.4	102.0	24.2	-95.03	4,227.4	-6.0	1,507.0	1,389.4	117.58	12.817		
13,100.0	7,500.0	7,647.6	7,529.5	103.7	24.2	-95.28	4,227.5	-6.0	1,602.0	1,482.8	119.27	13.432		
13,200.0	7,500.0	7,649.6	7,531.5	105.4	24.2	-95.51	4,227.5	-6.0	1,697.6	1,576.7	120.96	14.035		
13,300.0	7,500.0	7,651.6	7,533.5	107.2	24.2	-95.75	4,227.6	-6.0	1,793.7	1,671.1	122.64	14.625		
13,400.0	7,500.0	7,653.5	7,535.4	108.9	24.2	-95.98	4,227.6	-6.0	1,890.2	1,765.9	124.33	15.203		
13,500.0	7,500.0	7,655.4	7,537.3	110.7	24.2	-96.20	4,227.7	-6.0	1,987.0	1,861.0	126.01	15.768		
13,600.0	7,500.0	7,657.3	7,539.2	112.4	24.2	-96.42	4,227.7	-6.0	2,084.2	1,956.5	127.69	16.321		
13,700.0	7,500.0	7,659.1	7,541.0	114.1	24.2	-96.63	4,227.8	-6.0	2,181.5	2,052.2	129.37	16.862		
13,800.0	7,500.0	7,660.9	7,542.8	115.9	24.2	-96.84	4,227.8	-6.0	2,279.1	2,148.1	131.05	17.391		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 13-6 (EXISTING) - ENCANA WELL - SU		Offset Site Error:		0.0 ft	
Survey Program:												765-MWD		Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor					
13,900.0	7,500.0	7,662.7	7,544.6	117.6	24.2	-97.05	4,227.9	-6.0	2,377.0	2,244.2	132.73	17.908					
14,000.0	7,500.0	7,664.4	7,546.3	119.4	24.2	-97.25	4,227.9	-6.0	2,474.9	2,340.5	134.40	18.414					
14,100.0	7,500.0	7,666.1	7,548.0	121.1	24.2	-97.45	4,228.0	-6.0	2,573.1	2,437.0	136.08	18.909					
14,200.0	7,500.0	7,667.7	7,549.6	122.8	24.2	-97.64	4,228.0	-6.0	2,671.3	2,533.6	137.75	19.393					
14,300.0	7,500.0	7,669.4	7,551.3	124.6	24.2	-97.83	4,228.1	-6.0	2,769.7	2,630.3	139.42	19.866					
14,400.0	7,500.0	7,671.0	7,552.9	126.3	24.2	-98.02	4,228.1	-6.0	2,868.2	2,727.1	141.09	20.330					
14,455.0	7,500.0	7,671.8	7,553.7	127.3	24.2	-98.12	4,228.1	-6.0	2,922.5	2,780.5	142.00	20.580					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 14-6 (EXISTING) - ENCANA WELL - SU											Offset Site Error: 0.0 ft		
Survey Program: 797-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	14.71	3,623.1	951.5	3,746.0				
100.0	100.0	86.5	86.5	0.2	0.1	14.71	3,623.1	951.4	3,745.9	3,745.6	0.30	N/A	
200.0	200.0	188.3	188.3	0.3	0.3	14.71	3,623.1	951.3	3,745.9	3,745.2	0.65	5,774.892	
300.0	300.0	290.2	290.2	0.5	0.5	14.71	3,623.0	951.0	3,745.8	3,744.8	1.00	3,755.632	
400.0	400.0	392.0	392.0	0.7	0.7	14.70	3,623.0	950.6	3,745.6	3,744.3	1.35	2,782.569	
500.0	500.0	493.8	493.8	0.8	0.8	14.70	3,622.9	950.1	3,745.4	3,743.7	1.69	2,209.912	
600.0	600.0	595.6	595.5	1.0	1.0	-81.72	3,622.7	949.5	3,745.0	3,743.0	2.05	1,829.803	
700.0	700.0	697.3	697.3	1.2	1.2	-81.78	3,622.6	948.8	3,744.3	3,741.9	2.40	1,560.972	
800.0	799.9	798.9	798.9	1.4	1.4	-81.87	3,622.5	948.0	3,743.4	3,740.6	2.76	1,358.225	
900.0	899.7	896.8	896.7	1.6	1.5	-81.99	3,622.3	947.1	3,742.1	3,739.0	3.12	1,199.595	
1,000.0	999.4	1,002.4	1,002.4	1.8	1.7	-82.14	3,622.3	946.0	3,740.7	3,737.2	3.51	1,065.975	
1,026.5	1,025.7	1,033.3	1,033.3	1.8	1.8	-82.20	3,622.2	945.5	3,740.3	3,736.6	3.62	1,033.407	
1,100.0	1,098.9	1,739.7	1,733.2	2.0	3.5	-84.04	3,571.9	876.6	3,731.0	3,725.7	5.25	710.527	
1,200.0	1,198.5	1,850.1	1,840.9	2.2	3.9	-84.43	3,556.5	857.8	3,712.4	3,706.6	5.76	644.151	
1,300.0	1,298.1	1,961.4	1,949.2	2.4	4.4	-84.85	3,541.1	837.2	3,693.7	3,687.4	6.31	585.180	
1,400.0	1,397.7	2,159.1	2,139.4	2.7	5.3	-85.74	3,512.3	791.9	3,673.3	3,666.1	7.24	507.423	
1,500.0	1,497.3	2,321.2	2,294.2	2.9	6.1	-86.52	3,485.1	752.0	3,650.5	3,642.5	8.08	451.846	
1,600.0	1,596.8	2,387.9	2,357.8	3.1	6.5	-86.84	3,473.8	735.7	3,628.1	3,619.6	8.57	423.235	
1,700.0	1,696.4	2,605.2	2,564.9	3.3	7.6	-87.90	3,434.1	682.8	3,605.1	3,595.4	9.68	372.554	
1,800.0	1,796.0	2,675.8	2,632.0	3.6	8.0	-88.23	3,420.0	666.5	3,580.6	3,570.4	10.18	351.555	
1,900.0	1,895.6	2,761.9	2,714.2	3.8	8.5	-88.62	3,402.9	647.5	3,556.6	3,545.9	10.75	330.801	
2,000.0	1,995.2	2,857.0	2,805.1	4.0	9.0	-89.07	3,384.0	626.4	3,532.9	3,521.6	11.37	310.852	
2,100.0	2,094.7	2,945.3	2,889.5	4.3	9.4	-89.47	3,366.5	607.4	3,509.5	3,497.6	11.94	293.822	
2,200.0	2,194.3	3,030.0	2,970.4	4.5	9.9	-89.88	3,349.8	588.9	3,486.4	3,473.9	12.53	278.159	
2,300.0	2,293.9	3,098.5	3,035.8	4.7	10.3	-90.22	3,336.8	573.0	3,464.0	3,450.9	13.08	264.861	
2,400.0	2,393.5	3,166.3	3,100.4	5.0	10.6	-90.57	3,324.5	556.8	3,442.6	3,429.0	13.62	252.849	
2,500.0	2,493.0	3,238.3	3,169.4	5.2	11.0	-90.94	3,311.9	540.3	3,422.0	3,407.9	14.16	241.628	
2,600.0	2,592.6	3,314.0	3,242.1	5.4	11.4	-91.31	3,298.9	524.0	3,402.3	3,387.5	14.71	231.237	
2,700.0	2,692.2	3,392.1	3,317.1	5.7	11.8	-91.70	3,285.9	506.6	3,383.2	3,367.9	15.32	220.838	
2,800.0	2,791.8	3,498.4	3,419.1	5.9	12.4	-92.27	3,268.5	481.9	3,364.5	3,348.5	16.04	209.815	
2,900.0	2,891.4	3,690.0	3,602.4	6.1	13.4	-93.27	3,233.2	438.8	3,343.9	3,326.8	17.16	194.828	
3,000.0	2,990.9	3,755.8	3,665.1	6.4	13.8	-93.62	3,220.6	423.7	3,323.1	3,305.4	17.72	187.574	
3,100.0	3,090.5	3,824.6	3,730.9	6.6	14.2	-94.00	3,208.0	407.7	3,303.4	3,285.1	18.29	180.563	
3,200.0	3,190.1	3,901.3	3,804.1	6.8	14.6	-94.43	3,194.5	389.2	3,284.5	3,265.6	18.92	173.578	
3,300.0	3,289.7	3,996.0	3,894.5	7.1	15.1	-94.98	3,178.0	366.4	3,266.2	3,246.5	19.65	166.256	
3,400.0	3,389.2	4,097.0	3,990.8	7.3	15.7	-95.57	3,160.2	341.7	3,247.8	3,227.4	20.41	159.094	
3,500.0	3,488.8	4,258.0	4,144.0	7.6	16.6	-96.53	3,131.0	301.7	3,229.7	3,208.2	21.54	149.960	
3,600.0	3,588.4	4,328.0	4,210.4	7.8	17.0	-96.96	3,117.4	284.1	3,210.3	3,188.1	22.15	144.958	
3,700.0	3,688.0	4,395.7	4,275.0	8.0	17.4	-97.36	3,104.7	268.1	3,192.0	3,169.3	22.73	140.419	
3,800.0	3,787.6	4,471.6	4,347.6	8.3	17.8	-97.80	3,091.0	251.0	3,174.7	3,151.3	23.37	135.868	
3,900.0	3,887.1	4,540.0	4,412.8	8.5	18.2	-98.22	3,078.9	234.5	3,158.0	3,134.0	23.99	131.633	
4,000.0	3,986.7	4,606.6	4,476.3	8.7	18.6	-98.64	3,067.6	217.7	3,142.5	3,117.9	24.60	127.739	
4,100.0	4,086.3	4,740.6	4,604.0	9.0	19.3	-99.50	3,045.6	183.7	3,127.8	3,102.2	25.63	122.029	
4,200.0	4,185.9	4,827.5	4,686.4	9.2	19.8	-100.08	3,030.6	160.7	3,112.5	3,086.1	26.39	117.926	
4,300.0	4,285.4	4,934.2	4,788.0	9.4	20.4	-100.77	3,011.7	133.7	3,097.3	3,070.0	27.24	113.701	
4,400.0	4,385.0	5,010.0	4,860.5	9.7	20.8	-101.24	2,998.7	116.1	3,082.8	3,054.9	27.88	110.560	
4,500.0	4,484.6	5,067.4	4,915.8	9.9	21.1	-101.58	2,989.4	103.7	3,069.5	3,041.1	28.41	108.042	
4,600.0	4,584.2	5,141.1	4,987.0	10.2	21.5	-102.01	2,978.0	88.5	3,057.2	3,028.2	29.01	105.384	
4,700.0	4,683.8	5,217.8	5,061.4	10.4	21.8	-102.44	2,966.7	73.5	3,045.8	3,016.2	29.61	102.864	
4,800.0	4,783.3	5,293.0	5,134.6	10.6	22.1	-102.84	2,956.1	59.9	3,035.3	3,005.1	30.18	100.564	
4,900.0	4,882.9	5,344.0	5,184.4	10.9	22.3	-103.10	2,949.5	51.3	3,026.0	2,995.4	30.62	98.813	
5,000.0	4,982.5	5,389.0	5,228.5	11.1	22.5	-103.32	2,944.3	44.3	3,018.5	2,987.4	31.04	97.245	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 14-6 (EXISTING) - ENCANA WELL - SU													Offset Site Error: 0.0 ft	
Survey Program: 797-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		
5,100.0	5,082.1	5,465.7	5,304.1	11.3	22.8	-103.67	2,936.6	33.2	3,012.2	2,980.6	31.56	95.456		
5,200.0	5,181.7	5,543.3	5,380.7	11.6	23.0	-104.01	2,929.6	23.2	3,006.9	2,974.8	32.06	93.801		
5,300.0	5,281.2	5,632.4	5,468.8	11.8	23.2	-104.37	2,922.1	13.0	3,002.2	2,969.7	32.57	92.186		
5,400.0	5,380.8	5,727.1	5,562.9	12.0	23.5	-104.71	2,914.6	4.3	2,997.9	2,964.8	33.05	90.702		
5,500.0	5,480.4	5,801.9	5,637.3	12.3	23.6	-104.95	2,909.1	-0.8	2,993.9	2,960.4	33.46	89.482		
5,600.0	5,580.0	5,862.0	5,697.2	12.5	23.7	-105.13	2,905.5	-4.3	2,991.2	2,957.4	33.82	88.438		
5,700.0	5,679.5	5,951.3	5,786.3	12.8	23.9	-105.37	2,901.0	-8.1	2,989.4	2,955.1	34.21	87.384		
5,800.0	5,779.1	6,006.4	5,841.3	13.0	24.0	-105.50	2,898.9	-9.7	2,988.4	2,953.9	34.53	86.546		
5,808.3	5,787.4	6,010.8	5,845.7	13.0	24.0	-105.51	2,898.8	-9.8	2,988.4	2,953.9	34.56	86.479		
5,900.0	5,878.7	6,052.0	5,886.9	13.2	24.0	-105.60	2,897.8	-11.0	2,989.1	2,954.3	34.83	85.809		
6,000.0	5,978.3	6,146.0	5,980.9	13.5	24.1	-105.81	2,896.8	-13.2	2,990.9	2,955.7	35.21	84.956		
6,100.0	6,077.9	6,232.5	6,067.3	13.7	24.2	-105.99	2,896.3	-15.2	2,993.2	2,957.7	35.56	84.164		
6,200.0	6,177.4	6,335.0	6,169.8	13.9	24.3	-106.20	2,895.7	-17.2	2,995.6	2,959.6	35.94	83.346		
6,300.0	6,277.0	6,426.6	6,261.3	14.2	24.4	-106.39	2,895.3	-18.9	2,998.0	2,961.7	36.30	82.584		
6,400.0	6,376.6	6,517.7	6,352.4	14.4	24.5	-106.58	2,895.2	-20.7	3,000.8	2,964.1	36.66	81.845		
6,500.0	6,476.2	6,614.2	6,448.9	14.7	24.6	-106.78	2,895.1	-22.7	3,003.8	2,966.8	37.04	81.095		
6,600.0	6,575.7	6,717.1	6,551.8	14.9	24.7	-107.00	2,895.1	-25.3	3,006.9	2,969.4	37.43	80.325		
6,700.0	6,675.3	6,825.8	6,660.5	15.1	24.9	-107.24	2,894.6	-28.5	3,009.8	2,971.9	37.84	79.545		
6,800.0	6,774.9	6,946.6	6,781.2	15.4	25.0	-107.50	2,893.6	-31.4	3,012.2	2,973.9	38.24	78.777		
6,900.0	6,874.5	7,048.2	6,882.8	15.6	25.1	-107.70	2,892.4	-33.0	3,014.1	2,975.5	38.61	78.074		
6,949.9	6,924.1	7,092.2	6,926.8	15.7	25.2	-107.79	2,892.0	-33.6	3,015.1	2,976.3	38.78	77.751		
7,000.0	6,974.0	7,136.3	6,970.9	15.8	25.2	-61.69	2,891.7	-34.2	3,014.2	2,975.2	38.93	77.416		
7,050.0	7,023.4	7,187.0	7,021.6	15.9	25.3	-41.47	2,891.4	-34.8	3,009.0	2,970.1	38.89	77.377		
7,100.0	7,072.1	7,187.0	7,021.6	16.0	25.3	-32.70	2,891.4	-34.8	3,000.0	2,961.5	38.56	77.793		
7,150.0	7,119.7	7,247.6	7,082.2	16.2	25.3	-28.43	2,891.4	-35.7	2,986.8	2,948.6	38.13	78.332		
7,200.0	7,165.9	7,279.3	7,113.9	16.3	25.3	-26.07	2,891.6	-36.1	2,969.9	2,932.4	37.47	79.258		
7,250.0	7,210.2	7,310.0	7,144.6	16.4	25.4	-24.83	2,892.0	-36.6	2,949.3	2,912.7	36.65	80.478		
7,300.0	7,252.5	7,339.4	7,174.0	16.5	25.4	-24.33	2,892.4	-37.1	2,925.2	2,889.6	35.68	81.975		
7,350.0	7,292.2	7,376.0	7,210.6	16.7	25.4	-24.45	2,893.2	-37.7	2,897.8	2,863.1	34.63	83.677		
7,400.0	7,329.2	7,401.3	7,235.8	16.8	25.5	-25.02	2,893.8	-38.1	2,867.0	2,833.5	33.50	85.596		
7,450.0	7,363.2	7,436.2	7,270.7	17.0	25.5	-26.22	2,894.7	-38.8	2,833.2	2,800.8	32.38	87.498		
7,500.0	7,393.8	7,467.9	7,302.4	17.3	25.5	-28.01	2,895.4	-39.3	2,796.5	2,765.2	31.34	89.243		
7,550.0	7,421.0	7,496.1	7,330.6	17.5	25.5	-30.54	2,896.1	-39.8	2,757.2	2,726.8	30.46	90.516		
7,600.0	7,444.3	7,522.9	7,357.4	17.8	25.6	-34.07	2,896.7	-40.3	2,715.7	2,685.8	29.90	90.833		
7,650.0	7,463.8	7,546.0	7,380.5	18.2	25.6	-38.94	2,897.3	-40.6	2,672.2	2,642.4	29.80	89.660		
7,700.0	7,479.2	7,564.6	7,399.1	18.5	25.6	-45.68	2,897.7	-40.9	2,627.0	2,596.7	30.35	86.559		
7,750.0	7,490.4	7,578.4	7,412.9	18.9	25.6	-55.00	2,898.0	-41.1	2,580.6	2,549.0	31.63	81.579		
7,800.0	7,497.4	7,587.4	7,421.8	19.3	25.6	-67.58	2,898.2	-41.2	2,533.3	2,499.8	33.45	75.740		
7,850.0	7,500.0	7,591.5	7,426.0	19.8	25.6	-83.35	2,898.3	-41.2	2,485.4	2,450.4	35.00	71.006		
7,855.2	7,500.0	7,591.7	7,426.1	19.9	25.6	-85.12	2,898.3	-41.2	2,480.5	2,445.4	35.11	70.658		
7,900.0	7,500.0	7,592.7	7,427.2	20.3	25.6	-85.20	2,898.3	-41.3	2,437.5	2,401.8	35.63	68.414		
8,000.0	7,500.0	7,595.1	7,429.5	21.3	25.6	-85.40	2,898.3	-41.3	2,341.7	2,304.9	36.86	63.525		
8,100.0	7,500.0	7,597.4	7,431.9	22.5	25.6	-85.59	2,898.4	-41.3	2,246.4	2,208.2	38.18	58.840		
8,200.0	7,500.0	7,599.7	7,434.2	23.7	25.6	-85.79	2,898.4	-41.3	2,151.5	2,111.9	39.56	54.388		
8,300.0	7,500.0	7,602.1	7,436.5	25.0	25.6	-85.98	2,898.5	-41.4	2,057.0	2,016.0	40.99	50.183		
8,400.0	7,500.0	7,604.4	7,438.8	26.3	25.6	-86.17	2,898.5	-41.4	1,963.1	1,920.6	42.47	46.228		
8,500.0	7,500.0	7,606.6	7,441.1	27.7	25.6	-86.36	2,898.6	-41.4	1,869.8	1,825.9	43.98	42.517		
8,600.0	7,500.0	7,608.9	7,443.4	29.1	25.6	-86.54	2,898.6	-41.4	1,777.3	1,731.8	45.52	39.044		
8,700.0	7,500.0	7,611.2	7,445.6	30.5	25.6	-86.73	2,898.7	-41.5	1,685.6	1,638.5	47.09	35.797		
8,800.0	7,500.0	7,613.4	7,447.9	32.0	25.6	-86.92	2,898.7	-41.5	1,594.9	1,546.2	48.68	32.765		
8,900.0	7,500.0	7,615.7	7,450.1	33.5	25.6	-87.10	2,898.8	-41.5	1,505.4	1,455.1	50.28	29.938		
9,000.0	7,500.0	7,617.9	7,452.3	35.1	25.6	-87.29	2,898.8	-41.5	1,417.3	1,365.3	51.90	27.305		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 14-6 (EXISTING) - ENCANA WELL - SU											Offset Site Error: 0.0 ft			
Survey Program: 797-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		
9,100.0	7,500.0	7,620.1	7,454.5	36.6	25.6	-87.47	2,898.9	-41.6	1,330.8	1,277.3	53.54	24.856		
9,200.0	7,500.0	7,622.3	7,456.7	38.2	25.6	-87.65	2,898.9	-41.6	1,246.4	1,191.2	55.19	22.585		
9,300.0	7,500.0	7,624.4	7,458.9	39.8	25.6	-87.83	2,899.0	-41.6	1,164.4	1,107.6	56.84	20.485		
9,400.0	7,500.0	7,626.6	7,461.1	41.4	25.6	-88.01	2,899.0	-41.6	1,085.5	1,027.0	58.51	18.553		
9,500.0	7,500.0	7,628.8	7,463.2	43.0	25.6	-88.19	2,899.0	-41.7	1,010.3	950.1	60.18	16.788		
9,600.0	7,500.0	7,630.9	7,465.4	44.6	25.6	-88.37	2,899.1	-41.7	939.7	877.9	61.86	15.191		
9,700.0	7,500.0	7,633.0	7,467.5	46.2	25.6	-88.54	2,899.1	-41.7	874.9	811.4	63.54	13.769		
9,800.0	7,500.0	7,635.1	7,469.6	47.9	25.6	-88.72	2,899.2	-41.7	817.2	752.0	65.23	12.528		
9,900.0	7,500.0	7,637.2	7,471.7	49.5	25.6	-88.89	2,899.2	-41.7	768.3	701.3	66.93	11.479		
10,000.0	7,500.0	7,639.3	7,473.8	51.2	25.6	-89.07	2,899.3	-41.8	729.8	661.1	68.63	10.634		
10,046.2	7,500.0	7,640.3	7,474.7	51.9	25.6	-89.15	2,899.3	-41.8	716.0	646.6	69.41	10.316		
10,100.0	7,500.0	7,641.4	7,475.9	52.8	25.6	-89.24	2,899.3	-41.8	703.3	633.1	70.11	10.030		
10,200.0	7,500.0	7,643.5	7,477.9	54.5	25.7	-89.41	2,899.3	-41.8	688.8	617.4	71.41	9.646		
10,264.5	7,500.0	7,644.8	7,479.3	55.6	25.7	-89.52	2,899.4	-41.8	686.1	613.9	72.24	9.498 CC, ES		
10,300.0	7,500.0	7,645.6	7,480.0	56.1	25.7	-89.58	2,899.4	-41.8	686.9	614.2	72.69	9.450		
10,400.0	7,500.0	7,647.7	7,482.1	57.8	25.7	-89.76	2,899.4	-41.8	697.8	623.8	73.96	9.434 SF		
10,500.0	7,500.0	7,649.7	7,484.2	59.5	25.7	-89.93	2,899.5	-41.8	720.8	645.6	75.22	9.582		
10,600.0	7,500.0	7,651.8	7,486.3	61.1	25.7	-90.10	2,899.5	-41.9	754.8	678.4	76.47	9.871		
10,700.0	7,500.0	7,653.9	7,488.4	62.8	25.7	-90.27	2,899.5	-41.9	798.5	720.8	77.70	10.276		
10,800.0	7,500.0	7,656.0	7,490.4	64.4	25.7	-90.44	2,899.6	-41.9	850.2	771.3	78.92	10.773		
10,906.2	7,500.0	7,658.2	7,492.6	66.2	25.7	-90.61	2,899.6	-41.9	912.5	832.3	80.20	11.378		
11,000.0	7,500.0	7,660.1	7,494.6	67.7	25.7	-90.76	2,899.7	-41.9	973.2	891.4	81.81	11.895		
11,100.0	7,500.0	7,662.2	7,496.6	69.4	25.7	-90.93	2,899.7	-41.9	1,043.3	959.8	83.54	12.489		
11,200.0	7,500.0	7,664.2	7,498.7	71.0	25.7	-91.09	2,899.7	-42.0	1,118.0	1,032.8	85.26	13.112		
11,256.2	7,500.0	7,665.3	7,499.8	72.0	25.7	-91.18	2,899.8	-42.0	1,161.7	1,075.4	86.23	13.471		
11,300.0	7,500.0	7,666.2	7,500.7	72.7	25.7	-91.26	2,899.8	-42.0	1,196.5	1,109.3	87.22	13.718		
11,400.0	7,500.0	7,668.2	7,502.7	74.4	25.7	-91.46	2,899.8	-42.0	1,278.8	1,189.4	89.45	14.296		
11,500.0	7,500.0	7,670.2	7,504.6	76.1	25.7	-91.67	2,899.9	-42.0	1,364.4	1,272.7	91.67	14.884		
11,600.0	7,500.0	7,672.1	7,506.6	77.8	25.7	-91.90	2,899.9	-42.0	1,452.6	1,358.7	93.86	15.476		
11,700.0	7,500.0	7,674.1	7,508.5	79.5	25.7	-92.14	2,899.9	-42.0	1,542.9	1,446.9	96.03	16.067		
11,800.0	7,500.0	7,676.0	7,510.4	81.2	25.7	-92.42	2,900.0	-42.1	1,635.1	1,536.9	98.17	16.655		
11,900.0	7,500.0	7,677.9	7,512.3	82.9	25.7	-92.72	2,900.0	-42.1	1,728.8	1,628.5	100.29	17.237		
12,000.0	7,500.0	7,679.7	7,514.2	84.7	25.7	-93.06	2,900.0	-42.1	1,823.6	1,721.3	102.38	17.813		
12,100.0	7,500.0	7,681.6	7,516.0	86.4	25.7	-93.45	2,900.1	-42.1	1,919.5	1,815.1	104.43	18.381		
12,169.2	7,500.0	7,682.8	7,517.3	87.6	25.7	-93.76	2,900.1	-42.1	1,986.4	1,880.5	105.83	18.770		
12,200.0	7,500.0	7,683.4	7,517.8	88.1	25.7	-93.82	2,900.1	-42.1	2,016.2	1,909.9	106.35	18.958		
12,300.0	7,500.0	7,685.2	7,519.6	89.8	25.7	-94.03	2,900.1	-42.1	2,113.3	2,005.3	108.06	19.557		
12,400.0	7,500.0	7,687.0	7,521.4	91.6	25.7	-94.24	2,900.2	-42.1	2,210.7	2,100.9	109.77	20.140		
12,500.0	7,500.0	7,688.8	7,523.2	93.3	25.7	-94.44	2,900.2	-42.1	2,308.3	2,196.8	111.47	20.708		
12,600.0	7,500.0	7,690.5	7,525.0	95.0	25.7	-94.65	2,900.2	-42.1	2,406.1	2,292.9	113.17	21.261		
12,700.0	7,500.0	7,692.3	7,526.7	96.8	25.7	-94.85	2,900.3	-42.2	2,504.0	2,389.2	114.87	21.799		
12,800.0	7,500.0	7,694.1	7,528.5	98.5	25.7	-95.06	2,900.3	-42.2	2,602.2	2,485.6	116.57	22.323		
12,900.0	7,500.0	7,695.8	7,530.2	100.2	25.7	-95.26	2,900.3	-42.2	2,700.4	2,582.2	118.27	22.833		
13,000.0	7,500.0	7,697.5	7,532.0	102.0	25.7	-95.46	2,900.4	-42.2	2,798.8	2,678.8	119.96	23.331		
13,100.0	7,500.0	7,699.3	7,533.7	103.7	25.7	-95.66	2,900.4	-42.2	2,897.3	2,775.6	121.65	23.816		
13,200.0	7,500.0	7,701.0	7,535.4	105.4	25.7	-95.86	2,900.4	-42.2	2,995.9	2,872.5	123.35	24.288		
13,300.0	7,500.0	7,702.7	7,537.1	107.2	25.7	-96.06	2,900.5	-42.2	3,094.5	2,969.5	125.03	24.749		
13,400.0	7,500.0	7,704.4	7,538.8	108.9	25.7	-96.25	2,900.5	-42.2	3,193.3	3,066.6	126.72	25.199		
13,500.0	7,500.0	7,706.1	7,540.5	110.7	25.7	-96.45	2,900.5	-42.2	3,292.1	3,163.7	128.41	25.638		
13,600.0	7,500.0	7,707.8	7,542.2	112.4	25.7	-96.64	2,900.5	-42.2	3,391.0	3,260.9	130.09	26.066		
13,700.0	7,500.0	7,709.5	7,543.9	114.1	25.7	-96.83	2,900.6	-42.3	3,490.0	3,358.2	131.77	26.485		
13,800.0	7,500.0	7,711.1	7,545.6	115.9	25.7	-97.02	2,900.6	-42.3	3,589.0	3,455.5	133.45	26.894		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 14-6 (EXISTING) - ENCANA WELL - SU		Offset Site Error:		0.0 ft
Survey Program: 797-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					
13,900.0	7,500.0	7,712.8	7,547.2	117.6	25.7	-97.21	2,900.6	-42.3	3,688.1	3,552.9	135.13	27.293					
14,000.0	7,500.0	7,714.4	7,548.9	119.4	25.7	-97.40	2,900.7	-42.3	3,787.2	3,650.4	136.80	27.683					
14,100.0	7,500.0	7,716.1	7,550.5	121.1	25.7	-97.59	2,900.7	-42.3	3,886.3	3,747.9	138.48	28.065					
14,200.0	7,500.0	7,717.7	7,552.2	122.8	25.7	-97.78	2,900.7	-42.3	3,985.5	3,845.4	140.15	28.438					
14,300.0	7,500.0	7,719.3	7,553.8	124.6	25.7	-97.96	2,900.8	-42.3	4,084.8	3,943.0	141.81	28.804					
14,400.0	7,500.0	7,721.0	7,555.4	126.3	25.7	-98.15	2,900.8	-42.3	4,184.1	4,040.6	143.48	29.161					
14,455.0	7,500.0	7,721.8	7,556.3	127.3	25.7	-98.25	2,900.8	-42.3	4,238.7	4,094.3	144.40	29.355					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 23-6 (EXISTING) - ENCANA WELL - GY													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink 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	18.10	4,282.5	1,399.7	4,505.6					
100.0	100.0	72.7	72.7	0.2	0.1	18.10	4,282.4	1,399.7	4,505.4	4,505.1	0.28	N/A		
189.0	189.0	151.0	151.0	0.3	0.3	18.10	4,282.2	1,399.7	4,505.2	4,504.6	0.57	7,894.157		
200.0	200.0	159.5	159.5	0.3	0.3	18.10	4,282.2	1,399.7	4,505.2	4,504.6	0.60	7,448.523		
300.0	300.0	242.4	242.4	0.5	0.4	18.10	4,282.5	1,399.6	4,505.5	4,504.5	0.92	4,875.676		
400.0	400.0	333.8	333.8	0.7	0.6	18.09	4,283.2	1,399.2	4,506.0	4,504.7	1.26	3,580.827		
500.0	500.0	441.1	441.1	0.8	0.8	18.08	4,284.1	1,398.5	4,506.6	4,505.0	1.62	2,781.423		
600.0	600.0	571.1	571.1	1.0	1.0	-78.34	4,284.5	1,397.8	4,506.6	4,504.6	2.02	2,227.639		
700.0	700.0	655.4	655.4	1.2	1.1	-78.39	4,284.7	1,396.7	4,505.9	4,503.6	2.35	1,918.165		
800.0	799.9	739.8	739.8	1.4	1.3	-78.46	4,285.6	1,395.1	4,505.4	4,502.8	2.68	1,680.365		
900.0	899.7	861.4	861.4	1.6	1.5	-78.60	4,286.8	1,392.7	4,504.6	4,501.5	3.09	1,458.566		
1,000.0	999.4	960.0	959.9	1.8	1.7	-78.74	4,287.4	1,390.5	4,502.9	4,499.5	3.47	1,298.379		
1,026.5	1,025.7	981.8	981.7	1.8	1.7	-78.77	4,287.6	1,389.9	4,502.5	4,498.9	3.56	1,263.748		
1,100.0	1,098.9	1,052.9	1,052.8	2.0	1.9	-78.88	4,288.4	1,387.8	4,501.3	4,497.5	3.85	1,170.101		
1,200.0	1,198.5	1,155.4	1,155.2	2.2	2.0	-79.04	4,289.5	1,384.9	4,499.7	4,495.4	4.25	1,059.132		
1,300.0	1,298.1	1,249.6	1,249.4	2.4	2.2	-79.19	4,290.5	1,382.1	4,498.1	4,493.5	4.64	969.556		
1,400.0	1,397.7	1,344.7	1,344.4	2.7	2.4	-79.33	4,291.7	1,379.3	4,496.7	4,491.7	5.03	893.103		
1,500.0	1,497.3	1,479.6	1,479.2	2.9	2.6	-79.55	4,293.1	1,375.1	4,495.1	4,489.6	5.51	816.540		
1,600.0	1,596.8	1,577.5	1,577.1	3.1	2.8	-79.70	4,293.5	1,372.0	4,493.0	4,487.1	5.91	760.198		
1,700.0	1,696.4	1,677.4	1,676.9	3.3	3.0	-79.85	4,294.1	1,368.7	4,491.0	4,484.6	6.32	710.553		
1,800.0	1,796.0	1,773.7	1,773.2	3.6	3.2	-80.01	4,294.6	1,365.6	4,488.9	4,482.2	6.73	667.455		
1,900.0	1,895.6	1,878.1	1,877.6	3.8	3.4	-80.17	4,295.2	1,362.4	4,487.0	4,479.9	7.14	628.001		
2,000.0	1,995.2	1,992.0	1,991.4	4.0	3.6	-80.34	4,295.4	1,359.2	4,484.8	4,477.3	7.58	591.605		
2,100.0	2,094.7	2,151.9	2,151.3	4.3	3.8	-80.56	4,293.7	1,355.8	4,481.6	4,473.5	8.09	553.702		
2,200.0	2,194.3	2,231.2	2,230.5	4.5	4.0	-80.66	4,292.4	1,354.3	4,478.1	4,469.6	8.46	529.049		
2,300.0	2,293.9	2,300.0	2,299.3	4.7	4.1	-80.75	4,291.8	1,353.4	4,475.4	4,466.6	8.82	507.618		
2,400.0	2,393.5	2,367.2	2,366.5	5.0	4.2	-80.84	4,291.7	1,352.8	4,473.4	4,464.2	9.17	488.012		
2,500.0	2,493.0	2,467.0	2,466.3	5.2	4.4	-80.97	4,291.9	1,351.6	4,471.8	4,462.2	9.58	466.971		
2,600.0	2,592.6	2,569.6	2,568.9	5.4	4.6	-81.11	4,292.1	1,349.7	4,470.0	4,460.0	9.99	447.349		
2,700.0	2,692.2	2,665.4	2,664.6	5.7	4.7	-81.25	4,292.3	1,347.9	4,468.3	4,457.9	10.40	429.819		
2,800.0	2,791.8	2,739.3	2,738.6	5.9	4.9	-81.35	4,292.6	1,346.7	4,466.9	4,456.2	10.76	415.116		
2,900.0	2,891.4	2,802.5	2,801.7	6.1	5.0	-81.44	4,293.3	1,345.9	4,466.3	4,455.2	11.11	402.137		
3,000.0	2,990.9	2,915.2	2,914.5	6.4	5.2	-81.59	4,294.7	1,344.7	4,465.9	4,454.4	11.54	387.027		
3,100.0	3,090.5	3,007.7	3,006.9	6.6	5.3	-81.71	4,295.9	1,343.7	4,465.5	4,453.6	11.94	374.091		
3,200.0	3,190.1	3,100.0	3,099.2	6.8	5.5	-81.84	4,297.2	1,342.6	4,465.3	4,453.0	12.33	362.002		
3,240.2	3,230.2	3,135.1	3,134.3	6.9	5.6	-81.88	4,297.8	1,342.1	4,465.3	4,452.8	12.49	357.440		
3,300.0	3,289.7	3,184.5	3,183.7	7.1	5.7	-81.95	4,298.7	1,341.4	4,465.3	4,452.6	12.72	351.020		
3,400.0	3,389.2	3,278.0	3,277.1	7.3	5.8	-82.09	4,300.6	1,339.8	4,465.7	4,452.5	13.12	340.281		
3,500.0	3,488.8	3,359.4	3,358.5	7.6	6.0	-82.21	4,302.5	1,338.4	4,466.2	4,452.7	13.51	330.702		
3,600.0	3,588.4	3,455.3	3,454.4	7.8	6.1	-82.35	4,305.2	1,336.4	4,467.2	4,453.3	13.91	321.046		
3,700.0	3,688.0	3,570.9	3,569.8	8.0	6.4	-82.53	4,308.2	1,333.7	4,468.0	4,453.6	14.36	311.148		
3,800.0	3,787.6	3,680.7	3,679.6	8.3	6.6	-82.69	4,310.7	1,331.4	4,468.5	4,453.7	14.79	302.066		
3,900.0	3,887.1	3,784.5	3,783.3	8.5	6.7	-82.84	4,312.8	1,329.5	4,468.8	4,453.6	15.21	293.728		
4,000.0	3,986.7	3,889.9	3,888.8	8.7	6.9	-82.99	4,314.7	1,327.8	4,469.1	4,453.5	15.64	285.792		
4,100.0	4,086.3	4,009.5	4,008.3	9.0	7.1	-83.16	4,316.5	1,325.9	4,469.1	4,453.0	16.09	277.812		
4,200.0	4,185.9	4,109.9	4,108.7	9.2	7.3	-83.30	4,317.8	1,324.3	4,468.9	4,452.4	16.50	270.820		
4,300.0	4,285.4	4,209.2	4,208.0	9.4	7.5	-83.44	4,319.1	1,322.5	4,468.8	4,451.9	16.92	264.186		
4,400.0	4,385.0	4,339.0	4,337.8	9.7	7.7	-83.63	4,320.5	1,320.0	4,468.3	4,450.9	17.38	257.047		
4,500.0	4,484.6	4,459.1	4,457.9	9.9	7.9	-83.80	4,320.8	1,317.7	4,467.2	4,449.3	17.83	250.492		
4,600.0	4,584.2	4,551.8	4,550.5	10.2	8.1	-83.93	4,321.0	1,315.9	4,466.0	4,447.7	18.23	244.914		
4,700.0	4,683.8	4,648.1	4,646.8	10.4	8.3	-84.07	4,321.4	1,314.2	4,465.0	4,446.4	18.64	239.508		
4,800.0	4,783.3	4,743.5	4,742.1	10.6	8.4	-84.20	4,321.7	1,312.5	4,464.0	4,445.0	19.05	234.354		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 23-6 (EXISTING) - ENCANA WELL - GY													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink 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	
4,900.0	4,882.9	4,826.5	4,825.1	10.9	8.6	-84.32	4,322.2	1,311.1	4,463.4	4,443.9	19.43	229.694		
5,000.0	4,982.5	4,912.7	4,911.4	11.1	8.7	-84.43	4,323.0	1,310.1	4,463.1	4,443.3	19.82	225.183		
5,100.0	5,082.1	5,032.1	5,030.7	11.3	9.0	-84.60	4,323.9	1,308.4	4,462.6	4,442.4	20.27	220.182		
5,200.0	5,181.7	5,120.9	5,119.5	11.6	9.1	-84.72	4,324.5	1,307.2	4,462.2	4,441.5	20.66	215.970		
5,270.6	5,251.9	5,178.2	5,176.8	11.7	9.2	-84.79	4,325.1	1,306.6	4,462.1	4,441.1	20.93	213.209		
5,300.0	5,281.2	5,202.6	5,201.2	11.8	9.3	-84.83	4,325.3	1,306.4	4,462.1	4,441.0	21.04	212.072		
5,400.0	5,380.8	5,306.8	5,305.4	12.0	9.4	-84.96	4,326.4	1,305.5	4,462.2	4,440.7	21.46	207.931		
5,500.0	5,480.4	5,411.7	5,410.3	12.3	9.6	-85.10	4,327.4	1,304.6	4,462.1	4,440.2	21.88	203.930		
5,528.1	5,508.4	5,437.1	5,435.7	12.4	9.7	-85.13	4,327.7	1,304.3	4,462.1	4,440.1	21.99	202.899		
5,600.0	5,580.0	5,501.9	5,500.4	12.5	9.8	-85.22	4,328.4	1,303.7	4,462.2	4,439.9	22.28	200.315		
5,700.0	5,679.5	5,598.5	5,597.1	12.8	10.0	-85.34	4,329.4	1,303.1	4,462.4	4,439.7	22.68	196.751		
5,800.0	5,779.1	5,687.7	5,686.3	13.0	10.1	-85.45	4,330.5	1,302.7	4,462.8	4,439.7	23.07	193.422		
5,900.0	5,878.7	5,796.0	5,794.5	13.2	10.3	-85.59	4,331.9	1,302.0	4,463.2	4,439.7	23.50	189.927		
6,000.0	5,978.3	5,916.8	5,915.3	13.5	10.5	-85.76	4,333.1	1,300.6	4,463.3	4,439.3	23.95	186.361		
6,072.5	6,050.4	5,984.2	5,982.8	13.6	10.6	-85.85	4,333.7	1,299.9	4,463.2	4,439.0	24.24	184.129		
6,100.0	6,077.9	6,010.7	6,009.2	13.7	10.7	-85.88	4,333.9	1,299.6	4,463.2	4,438.9	24.35	183.284		
6,149.6	6,127.3	6,060.6	6,059.2	13.8	10.8	-85.95	4,334.4	1,299.0	4,463.2	4,438.7	24.56	181.745		
6,200.0	6,177.4	6,100.0	6,098.5	13.9	10.8	-86.00	4,334.7	1,298.5	4,463.3	4,438.5	24.75	180.357		
6,300.0	6,277.0	6,185.2	6,183.7	14.2	11.0	-86.12	4,335.8	1,297.3	4,463.6	4,438.5	25.13	177.590		
6,400.0	6,376.6	6,312.5	6,311.0	14.4	11.2	-86.30	4,337.4	1,295.2	4,464.0	4,438.4	25.60	174.383		
6,500.0	6,476.2	6,409.8	6,408.3	14.7	11.4	-86.44	4,338.4	1,293.3	4,464.1	4,438.1	26.01	171.633		
6,600.0	6,575.7	6,529.2	6,527.7	14.9	11.6	-86.61	4,339.2	1,290.8	4,463.8	4,437.4	26.46	168.701		
6,684.5	6,659.9	6,600.0	6,598.4	15.1	11.7	-86.72	4,339.8	1,289.4	4,463.7	4,436.9	26.79	166.638		
6,700.0	6,675.3	6,613.9	6,612.3	15.1	11.8	-86.74	4,339.9	1,289.1	4,463.7	4,436.9	26.85	166.257		
6,800.0	6,774.9	6,710.3	6,708.7	15.4	11.9	-86.87	4,340.8	1,287.3	4,463.8	4,436.5	27.26	163.766		
6,900.0	6,874.5	6,820.5	6,818.9	15.6	12.1	-87.04	4,341.8	1,284.4	4,463.8	4,436.1	27.70	161.176		
6,949.9	6,924.1	6,867.3	6,865.7	15.7	12.2	-87.12	4,342.2	1,283.0	4,463.8	4,435.9	27.90	159.998		
7,000.0	6,974.0	6,915.3	6,913.6	15.8	12.3	-40.95	4,342.7	1,281.4	4,461.6	4,433.6	28.02	159.235		
7,050.0	7,023.4	6,964.9	6,963.2	15.9	12.4	-20.46	4,343.3	1,279.7	4,455.2	4,427.2	27.98	159.235		
7,100.0	7,072.1	7,000.0	6,998.2	16.0	12.5	-11.37	4,343.6	1,278.4	4,444.5	4,416.8	27.75	160.168		
7,150.0	7,119.7	7,041.8	7,040.0	16.2	12.5	-6.42	4,344.2	1,276.9	4,429.8	4,402.4	27.37	161.835		
7,200.0	7,165.9	7,073.4	7,071.6	16.3	12.6	-3.24	4,344.7	1,275.8	4,411.2	4,384.4	26.82	164.446		
7,250.0	7,210.2	7,100.0	7,098.2	16.4	12.6	-0.92	4,345.2	1,274.9	4,388.8	4,362.7	26.12	167.995		
7,300.0	7,252.5	7,137.5	7,135.6	16.5	12.7	0.93	4,346.1	1,273.8	4,362.8	4,337.5	25.31	172.371		
7,350.0	7,292.2	7,168.9	7,167.0	16.7	12.8	2.59	4,346.8	1,273.0	4,333.2	4,308.9	24.37	177.806		
7,400.0	7,329.2	7,200.0	7,198.1	16.8	12.8	4.19	4,347.6	1,272.3	4,300.5	4,277.1	23.34	184.271		
7,450.0	7,363.2	7,223.3	7,221.4	17.0	12.9	5.87	4,348.2	1,271.9	4,264.7	4,242.4	22.23	191.836		
7,500.0	7,393.8	7,246.0	7,244.0	17.3	12.9	7.77	4,348.8	1,271.6	4,226.1	4,205.0	21.11	200.239		
7,550.0	7,421.0	7,266.3	7,264.4	17.5	12.9	10.07	4,349.4	1,271.3	4,185.0	4,165.0	20.03	208.978		
7,600.0	7,444.3	7,284.1	7,282.2	17.8	13.0	13.01	4,350.0	1,271.1	4,141.8	4,122.7	19.11	216.784		
7,650.0	7,463.8	7,300.0	7,298.1	18.2	13.0	17.06	4,350.5	1,270.9	4,096.6	4,078.1	18.54	220.905		
7,700.0	7,479.2	7,312.2	7,310.2	18.5	13.0	23.01	4,350.9	1,270.8	4,049.9	4,031.2	18.72	216.392		
7,750.0	7,490.4	7,322.0	7,320.1	18.9	13.0	32.47	4,351.2	1,270.8	4,002.0	3,981.7	20.29	197.235		
7,800.0	7,497.4	7,328.7	7,326.7	19.3	13.0	48.55	4,351.5	1,270.8	3,953.3	3,929.2	24.06	164.342		
7,850.0	7,500.0	7,332.0	7,330.1	19.8	13.1	74.58	4,351.6	1,270.7	3,904.0	3,875.3	28.76	135.731		
7,855.2	7,500.0	7,332.2	7,330.2	19.9	13.1	77.76	4,351.6	1,270.7	3,898.9	3,869.8	29.08	134.072		
7,900.0	7,500.0	7,333.4	7,331.4	20.3	13.1	77.87	4,351.6	1,270.7	3,854.7	3,825.1	29.59	130.250		
8,000.0	7,500.0	7,336.1	7,334.2	21.3	13.1	78.12	4,351.7	1,270.7	3,756.0	3,725.2	30.81	121.912		
8,100.0	7,500.0	7,338.9	7,336.9	22.5	13.1	78.36	4,351.8	1,270.7	3,657.4	3,625.3	32.11	113.920		
8,200.0	7,500.0	7,341.6	7,339.7	23.7	13.1	78.61	4,351.9	1,270.7	3,558.9	3,525.5	33.47	106.339		
8,300.0	7,500.0	7,344.4	7,342.4	25.0	13.1	78.87	4,352.0	1,270.7	3,460.5	3,425.6	34.89	99.195		
8,400.0	7,500.0	7,347.2	7,345.2	26.3	13.1	79.12	4,352.1	1,270.7	3,362.2	3,325.8	36.35	92.495		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 23-6 (EXISTING) - ENCANA WELL - GY											Offset Site Error:		0.0 ft
Survey Program: 100-Geolink 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	
8,500.0	7,500.0	7,350.1	7,348.1	27.7	13.1	79.38	4,352.2	1,270.7	3,263.9	3,226.1	37.85	86.229	
8,600.0	7,500.0	7,352.9	7,350.9	29.1	13.1	79.64	4,352.3	1,270.7	3,165.8	3,126.4	39.39	80.378	
8,700.0	7,500.0	7,355.8	7,353.8	30.5	13.1	79.90	4,352.4	1,270.7	3,067.8	3,026.8	40.95	74.917	
8,800.0	7,500.0	7,358.7	7,356.7	32.0	13.1	80.17	4,352.5	1,270.7	2,969.9	2,927.3	42.53	69.822	
8,900.0	7,500.0	7,361.6	7,359.6	33.5	13.1	80.43	4,352.6	1,270.7	2,872.1	2,828.0	44.14	65.067	
9,000.0	7,500.0	7,364.6	7,362.6	35.1	13.1	80.71	4,352.7	1,270.7	2,774.5	2,728.8	45.77	60.625	
9,100.0	7,500.0	7,367.6	7,365.6	36.6	13.1	80.98	4,352.9	1,270.7	2,677.1	2,629.7	47.41	56.473	
9,200.0	7,500.0	7,370.6	7,368.6	38.2	13.1	81.26	4,353.0	1,270.7	2,579.9	2,530.8	49.06	52.587	
9,300.0	7,500.0	7,373.6	7,371.6	39.8	13.1	81.54	4,353.1	1,270.7	2,482.9	2,432.1	50.72	48.948	
9,400.0	7,500.0	7,376.7	7,374.7	41.4	13.1	81.82	4,353.2	1,270.7	2,386.1	2,333.7	52.40	45.535	
9,500.0	7,500.0	7,379.7	7,377.8	43.0	13.1	82.10	4,353.3	1,270.7	2,289.6	2,235.5	54.09	42.332	
9,600.0	7,500.0	7,382.9	7,380.9	44.6	13.1	82.39	4,353.4	1,270.7	2,193.4	2,137.6	55.78	39.322	
9,700.0	7,500.0	7,386.0	7,384.0	46.2	13.1	82.68	4,353.5	1,270.7	2,097.6	2,040.1	57.48	36.490	
9,800.0	7,500.0	7,389.2	7,387.2	47.9	13.2	82.98	4,353.7	1,270.7	2,002.2	1,943.0	59.19	33.824	
9,900.0	7,500.0	7,400.0	7,398.0	49.5	13.2	83.99	4,354.1	1,270.8	1,907.2	1,846.2	60.99	31.269	
10,000.0	7,500.0	7,400.0	7,398.0	51.2	13.2	83.99	4,354.1	1,270.8	1,812.8	1,750.1	62.68	28.921	
10,046.2	7,500.0	7,400.0	7,398.0	51.9	13.2	83.99	4,354.1	1,270.8	1,769.3	1,705.9	63.46	27.882	
10,100.0	7,500.0	7,400.0	7,398.0	52.8	13.2	84.13	4,354.1	1,270.8	1,719.0	1,654.7	64.29	26.740	
10,200.0	7,500.0	7,400.0	7,398.0	54.5	13.2	84.37	4,354.1	1,270.8	1,626.6	1,560.8	65.82	24.714	
10,300.0	7,500.0	7,400.0	7,398.0	56.1	13.2	84.58	4,354.1	1,270.8	1,536.0	1,468.6	67.33	22.811	
10,400.0	7,500.0	7,400.0	7,398.0	57.8	13.2	84.76	4,354.1	1,270.8	1,447.3	1,378.5	68.83	21.026	
10,500.0	7,500.0	7,411.7	7,409.6	59.5	13.2	85.84	4,354.5	1,270.9	1,361.1	1,290.6	70.42	19.328	
10,600.0	7,500.0	7,415.0	7,413.0	61.1	13.2	86.20	4,354.7	1,270.9	1,277.8	1,205.9	71.92	17.769	
10,700.0	7,500.0	7,418.4	7,416.4	62.8	13.2	86.55	4,354.8	1,270.9	1,198.3	1,124.9	73.39	16.327	
10,800.0	7,500.0	7,421.9	7,419.9	64.4	13.2	86.87	4,355.0	1,270.9	1,123.1	1,048.2	74.85	15.004	
10,906.2	7,500.0	7,425.7	7,423.7	66.2	13.2	87.21	4,355.1	1,271.0	1,049.2	972.9	76.39	13.736	
11,000.0	7,500.0	7,429.1	7,427.1	67.7	13.2	87.46	4,355.3	1,271.0	989.6	911.5	78.02	12.683	
11,100.0	7,500.0	7,432.9	7,430.8	69.4	13.2	87.73	4,355.4	1,271.0	932.2	852.4	79.77	11.686	
11,200.0	7,500.0	7,436.7	7,434.7	71.0	13.2	88.01	4,355.6	1,271.0	882.4	800.8	81.52	10.824	
11,256.2	7,500.0	7,438.9	7,436.9	72.0	13.2	88.17	4,355.7	1,271.1	858.2	775.7	82.50	10.403	
11,300.0	7,500.0	7,440.7	7,438.6	72.7	13.2	88.29	4,355.8	1,271.1	841.4	758.0	83.40	10.088	
11,400.0	7,500.0	7,444.7	7,442.7	74.4	13.3	88.58	4,355.9	1,271.1	809.3	723.8	85.44	9.471	
11,500.0	7,500.0	7,448.9	7,446.9	76.1	13.3	88.88	4,356.1	1,271.1	786.9	699.4	87.47	8.996	
11,600.0	7,500.0	7,453.3	7,451.2	77.8	13.3	89.20	4,356.3	1,271.2	775.0	685.6	89.47	8.662	
11,657.1	7,500.0	7,455.8	7,453.7	78.8	13.3	89.39	4,356.5	1,271.2	773.2	682.6	90.60	8.534 CC, ES	
11,700.0	7,500.0	7,457.7	7,455.7	79.5	13.3	89.53	4,356.5	1,271.2	774.2	682.8	91.45	8.466	
11,800.0	7,500.0	7,462.4	7,460.3	81.2	13.3	89.87	4,356.8	1,271.2	784.5	691.1	93.41	8.399 SF	
11,900.0	7,500.0	7,467.2	7,465.1	82.9	13.3	90.23	4,357.0	1,271.3	805.5	710.1	95.34	8.449	
12,000.0	7,500.0	7,472.1	7,470.0	84.7	13.3	90.59	4,357.2	1,271.3	836.2	739.0	97.24	8.600	
12,100.0	7,500.0	7,477.2	7,475.1	86.4	13.3	90.95	4,357.5	1,271.3	875.8	776.7	99.12	8.836	
12,169.2	7,500.0	7,480.9	7,478.8	87.6	13.3	91.21	4,357.7	1,271.4	907.7	807.3	100.40	9.041	
12,200.0	7,500.0	7,482.5	7,480.4	88.1	13.3	91.33	4,357.8	1,271.4	923.1	822.2	100.94	9.145	
12,300.0	7,500.0	7,488.0	7,485.9	89.8	13.3	91.72	4,358.0	1,271.4	978.0	875.3	102.67	9.526	
12,400.0	7,500.0	7,493.6	7,491.5	91.6	13.3	92.13	4,358.3	1,271.5	1,039.6	935.2	104.39	9.959	
12,500.0	7,500.0	7,499.4	7,497.3	93.3	13.3	92.55	4,358.6	1,271.5	1,106.8	1,000.7	106.11	10.431	
12,600.0	7,500.0	7,504.7	7,502.6	95.0	13.4	92.93	4,358.9	1,271.6	1,178.6	1,070.8	107.82	10.931	
12,700.0	7,500.0	7,509.9	7,507.8	96.8	13.4	93.30	4,359.2	1,271.6	1,254.3	1,144.8	109.53	11.451	
12,800.0	7,500.0	7,515.1	7,513.0	98.5	13.4	93.68	4,359.5	1,271.7	1,333.2	1,221.9	111.24	11.985	
12,900.0	7,500.0	7,520.3	7,518.1	100.2	13.4	94.05	4,359.7	1,271.7	1,414.7	1,301.7	112.94	12.526	
13,000.0	7,500.0	7,525.4	7,523.3	102.0	13.4	94.42	4,360.0	1,271.8	1,498.4	1,383.8	114.63	13.072	
13,100.0	7,500.0	7,530.6	7,528.4	103.7	13.4	94.78	4,360.3	1,271.8	1,584.0	1,467.7	116.32	13.618	
13,200.0	7,500.0	7,535.7	7,533.5	105.4	13.4	95.15	4,360.6	1,271.8	1,671.2	1,553.2	118.01	14.162	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 23-6 (EXISTING) - ENCANA WELL - GY												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 100-Geolink MWD												<b>Offset Well Error:</b>	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
13,300.0	7,500.0	7,540.8	7,538.6	107.2	13.4	95.52	4,360.8	1,271.9	1,759.8	1,640.1	119.68	14.703	
13,400.0	7,500.0	7,545.9	7,543.7	108.9	13.4	95.88	4,361.1	1,271.9	1,849.5	1,728.1	121.36	15.240	
13,500.0	7,500.0	7,551.0	7,548.8	110.7	13.4	96.24	4,361.4	1,272.0	1,940.2	1,817.1	123.02	15.771	
13,600.0	7,500.0	7,556.0	7,553.8	112.4	13.4	96.60	4,361.6	1,272.0	2,031.7	1,907.0	124.68	16.295	
13,700.0	7,500.0	7,561.1	7,558.9	114.1	13.5	96.96	4,361.9	1,272.1	2,124.0	1,997.7	126.34	16.812	
13,800.0	7,500.0	7,566.1	7,563.9	115.9	13.5	97.32	4,362.2	1,272.1	2,217.0	2,089.0	127.98	17.322	
13,900.0	7,500.0	7,571.1	7,568.9	117.6	13.5	97.67	4,362.4	1,272.2	2,310.5	2,180.9	129.62	17.825	
14,000.0	7,500.0	7,576.1	7,573.9	119.4	13.5	98.02	4,362.7	1,272.2	2,404.5	2,273.3	131.26	18.319	
14,100.0	7,500.0	7,581.1	7,578.9	121.1	13.5	98.38	4,362.9	1,272.3	2,499.0	2,366.2	132.89	18.806	
14,200.0	7,500.0	7,586.1	7,583.8	122.8	13.5	98.72	4,363.2	1,272.3	2,593.9	2,459.4	134.51	19.285	
14,300.0	7,500.0	7,591.0	7,588.8	124.6	13.5	99.07	4,363.5	1,272.4	2,689.2	2,553.1	136.12	19.756	
14,400.0	7,500.0	7,596.0	7,593.7	126.3	13.5	99.42	4,363.7	1,272.4	2,784.8	2,647.1	137.73	20.220	
14,455.0	7,500.0	7,600.0	7,597.7	127.3	13.5	99.70	4,363.9	1,272.4	2,837.5	2,698.9	138.57	20.476	



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 2-4-6 (EXISTING) - ENCANA WELL - PL													Offset Site Error:	0.0 ft
Survey Program: 775-Geolink 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	14.98	3,659.5	979.4	3,788.4					
100.0	100.0	84.0	84.0	0.2	0.1	14.98	3,659.5	979.4	3,788.3	3,788.0	0.30	N/A		
200.0	200.0	184.0	184.0	0.3	0.3	14.98	3,659.5	979.4	3,788.3	3,787.7	0.64	5,899.633		
300.0	300.0	284.0	284.0	0.5	0.5	14.98	3,659.5	979.4	3,788.3	3,787.3	0.99	3,833.304		
400.0	400.0	384.0	384.0	0.7	0.7	14.98	3,659.5	979.4	3,788.3	3,787.0	1.33	2,838.965		
500.0	500.0	484.0	484.0	0.8	0.8	14.98	3,659.5	979.4	3,788.3	3,786.7	1.68	2,254.229		
600.0	600.0	584.0	584.0	1.0	1.0	-81.43	3,659.5	979.4	3,788.2	3,786.2	2.03	1,868.768		
700.0	700.0	684.0	684.0	1.2	1.2	-81.47	3,659.5	979.4	3,787.8	3,785.4	2.38	1,594.107		
800.0	799.9	775.0	775.0	1.4	1.3	-81.53	3,659.5	979.4	3,787.2	3,784.5	2.72	1,394.741		
822.5	822.4	775.0	775.0	1.4	1.3	-81.53	3,659.5	979.4	3,787.1	3,784.4	2.76	1,372.881		
900.0	899.7	775.0	775.0	1.6	1.3	-81.53	3,659.5	979.4	3,787.8	3,784.9	2.91	1,302.976		
1,000.0	999.4	775.0	775.0	1.8	1.3	-81.50	3,659.5	979.4	3,790.9	3,787.8	3.11	1,218.582		
1,026.5	1,025.7	775.0	775.0	1.8	1.3	-81.48	3,659.5	979.4	3,792.1	3,788.9	3.17	1,197.560		
1,100.0	1,098.9	775.0	775.0	2.0	1.3	-81.48	3,659.5	979.4	3,796.4	3,793.0	3.32	1,142.419		
1,183.2	1,181.8	959.4	959.2	2.2	1.9	-81.79	3,665.2	977.6	3,793.4	3,789.5	3.89	975.462		
1,200.0	1,198.5	967.2	967.0	2.2	1.9	-81.80	3,665.7	977.5	3,794.1	3,790.2	3.94	962.436		
1,300.0	1,298.1	1,013.8	1,013.5	2.4	2.1	-81.89	3,669.0	976.4	3,799.2	3,795.0	4.26	890.847		
1,400.0	1,397.7	1,060.2	1,059.8	2.7	2.2	-81.99	3,673.0	975.1	3,805.7	3,801.1	4.59	829.034		
1,500.0	1,497.3	1,106.5	1,105.7	2.9	2.4	-82.09	3,677.8	973.6	3,813.7	3,808.7	4.92	775.320		
1,600.0	1,596.8	1,152.5	1,151.4	3.1	2.5	-82.20	3,683.2	971.8	3,823.0	3,817.7	5.25	728.357		
1,700.0	1,696.4	1,198.2	1,196.7	3.3	2.7	-82.31	3,689.2	969.9	3,833.7	3,828.2	5.58	687.056		
1,800.0	1,796.0	1,380.6	1,376.1	3.6	3.3	-82.81	3,720.2	959.9	3,851.1	3,844.9	6.22	619.038		
1,900.0	1,895.6	1,380.6	1,376.1	3.8	3.3	-82.81	3,720.2	959.9	3,861.8	3,855.3	6.45	598.583		
2,000.0	1,995.2	1,380.6	1,376.1	4.0	3.3	-82.81	3,720.2	959.9	3,875.0	3,868.3	6.68	579.859		
2,100.0	2,094.7	1,380.6	1,376.1	4.3	3.3	-82.81	3,720.2	959.9	3,890.8	3,883.8	6.91	562.705		
2,200.0	2,194.3	1,472.1	1,465.6	4.5	3.6	-83.08	3,738.5	954.1	3,907.9	3,900.6	7.37	530.271		
2,300.0	2,293.9	1,568.7	1,560.0	4.7	4.0	-83.37	3,757.8	947.9	3,925.2	3,917.4	7.84	500.842		
2,400.0	2,393.5	1,665.2	1,654.4	5.0	4.4	-83.64	3,777.1	941.7	3,942.6	3,934.3	8.30	474.770		
2,500.0	2,493.0	1,761.8	1,748.8	5.2	4.8	-83.92	3,796.4	935.5	3,960.0	3,951.3	8.77	451.526		
2,600.0	2,592.6	1,858.4	1,843.3	5.4	5.2	-84.20	3,815.7	929.3	3,977.6	3,968.3	9.24	430.684		
2,700.0	2,692.2	1,955.0	1,937.7	5.7	5.6	-84.47	3,835.0	923.1	3,995.2	3,985.5	9.70	411.898		
2,800.0	2,791.8	2,051.5	2,032.1	5.9	6.0	-84.74	3,854.3	916.9	4,013.0	4,002.8	10.16	394.885		
2,900.0	2,891.4	2,148.1	2,126.5	6.1	6.3	-85.01	3,873.5	910.7	4,030.8	4,020.2	10.62	379.410		
3,000.0	2,990.9	2,244.7	2,220.9	6.4	6.7	-85.27	3,892.8	904.5	4,048.7	4,037.6	11.08	365.276		
3,100.0	3,090.5	2,341.3	2,315.4	6.6	7.1	-85.54	3,912.1	898.3	4,066.7	4,055.2	11.54	352.321		
3,200.0	3,190.1	2,437.8	2,409.8	6.8	7.5	-85.80	3,931.4	892.1	4,084.8	4,072.8	12.00	340.403		
3,300.0	3,289.7	2,534.4	2,504.2	7.1	7.9	-86.06	3,950.7	885.9	4,102.9	4,090.5	12.46	329.407		
3,400.0	3,389.2	2,631.0	2,598.6	7.3	8.3	-86.31	3,970.0	879.7	4,121.2	4,108.3	12.91	319.231		
3,500.0	3,488.8	2,727.5	2,693.1	7.6	8.7	-86.57	3,989.3	873.5	4,139.5	4,126.2	13.36	309.787		
3,600.0	3,588.4	2,824.1	2,787.5	7.8	9.1	-86.82	4,008.6	867.4	4,157.9	4,144.1	13.81	301.001		
3,700.0	3,688.0	2,920.7	2,881.9	8.0	9.5	-87.07	4,027.9	861.2	4,176.4	4,162.2	14.26	292.808		
3,800.0	3,787.6	3,017.3	2,976.3	8.3	9.8	-87.32	4,047.2	855.0	4,195.0	4,180.3	14.71	285.150		
3,900.0	3,887.1	3,113.8	3,070.8	8.5	10.2	-87.57	4,066.4	848.8	4,213.7	4,198.5	15.16	277.978		
4,000.0	3,986.7	3,210.4	3,165.2	8.7	10.6	-87.81	4,085.7	842.6	4,232.4	4,216.8	15.60	271.248		
4,100.0	4,086.3	3,307.0	3,259.6	9.0	11.0	-88.05	4,105.0	836.4	4,251.2	4,235.2	16.05	264.920		
4,200.0	4,185.9	3,403.6	3,354.0	9.2	11.4	-88.29	4,124.3	830.2	4,270.1	4,253.6	16.49	258.960		
4,300.0	4,285.4	3,500.1	3,448.5	9.4	11.8	-88.53	4,143.6	824.0	4,289.0	4,272.1	16.93	253.338		
4,400.0	4,385.0	3,596.7	3,542.9	9.7	12.2	-88.77	4,162.9	817.8	4,308.1	4,290.7	17.37	248.027		
4,500.0	4,484.6	3,693.3	3,637.3	9.9	12.6	-89.00	4,182.2	811.6	4,327.2	4,309.4	17.81	243.001		
4,600.0	4,584.2	3,789.8	3,731.7	10.2	12.9	-89.23	4,201.5	805.4	4,346.3	4,328.1	18.24	238.238		
4,700.0	4,683.8	3,886.4	3,826.2	10.4	13.3	-89.46	4,220.8	799.2	4,365.6	4,346.9	18.68	233.720		
4,800.0	4,783.3	3,983.0	3,920.6	10.6	13.7	-89.69	4,240.1	793.0	4,384.9	4,365.8	19.11	229.427		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 2-4-6 (EXISTING) - ENCANA WELL - PL													Offset Site Error:	0.0 ft
Survey Program: 775-Geolink 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)				
4,900.0	4,882.9	4,079.6	4,015.0	10.9	14.1	-89.91	4,259.3	786.8	4,404.3	4,384.7	19.54	225.345		
5,000.0	4,982.5	4,176.1	4,109.4	11.1	14.5	-90.14	4,278.6	780.6	4,423.7	4,403.7	19.98	221.457		
5,100.0	5,082.1	4,272.7	4,203.9	11.3	14.9	-90.36	4,297.9	774.4	4,443.2	4,422.8	20.40	217.751		
5,200.0	5,181.7	4,369.3	4,298.3	11.6	15.3	-90.58	4,317.2	768.2	4,462.8	4,442.0	20.83	214.215		
5,300.0	5,281.2	4,465.9	4,392.7	11.8	15.7	-90.80	4,336.5	762.1	4,482.4	4,461.2	21.26	210.837		
5,400.0	5,380.8	4,562.4	4,487.1	12.0	16.1	-91.02	4,355.8	755.9	4,502.1	4,480.5	21.69	207.607		
5,500.0	5,480.4	4,659.0	4,581.6	12.3	16.5	-91.23	4,375.1	749.7	4,521.9	4,499.8	22.11	204.516		
5,600.0	5,580.0	4,755.6	4,676.0	12.5	16.8	-91.44	4,394.4	743.5	4,541.7	4,519.2	22.53	201.555		
5,700.0	5,679.5	4,852.2	4,770.4	12.8	17.2	-91.65	4,413.7	737.3	4,561.6	4,538.7	22.96	198.717		
5,800.0	5,779.1	4,948.7	4,864.8	13.0	17.6	-91.86	4,433.0	731.1	4,581.6	4,558.2	23.38	195.994		
5,900.0	5,878.7	5,045.3	4,959.2	13.2	18.0	-92.07	4,452.2	724.9	4,601.6	4,577.8	23.80	193.379		
6,000.0	5,978.3	5,141.9	5,053.7	13.5	18.4	-92.28	4,471.5	718.7	4,621.7	4,597.5	24.21	190.866		
6,100.0	6,077.9	5,238.4	5,148.1	13.7	18.8	-92.48	4,490.8	712.5	4,641.8	4,617.2	24.63	188.450		
6,200.0	6,177.4	5,335.0	5,242.5	13.9	19.2	-92.68	4,510.1	706.3	4,662.0	4,636.9	25.05	186.125		
6,300.0	6,277.0	5,431.6	5,336.9	14.2	19.6	-92.88	4,529.4	700.1	4,682.2	4,656.8	25.46	183.887		
6,400.0	6,376.6	5,528.2	5,431.4	14.4	20.0	-93.08	4,548.7	693.9	4,702.5	4,676.7	25.88	181.729		
6,500.0	6,476.2	5,624.7	5,525.8	14.7	20.3	-93.28	4,568.0	687.7	4,722.9	4,696.6	26.29	179.649		
6,600.0	6,575.7	5,721.3	5,620.2	14.9	20.7	-93.48	4,587.3	681.5	4,743.3	4,716.6	26.70	177.643		
6,700.0	6,675.3	5,817.9	5,714.6	15.1	21.1	-93.67	4,606.6	675.3	4,763.8	4,736.7	27.11	175.706		
6,800.0	6,774.9	5,914.5	5,809.1	15.4	21.5	-93.86	4,625.9	669.1	4,784.3	4,756.8	27.52	173.835		
6,900.0	6,874.5	6,011.0	5,903.5	15.6	21.9	-94.05	4,645.1	662.9	4,804.9	4,776.9	27.93	172.027		
6,949.9	6,924.1	6,059.2	5,950.6	15.7	22.1	-94.15	4,654.8	659.9	4,815.1	4,787.0	28.13	171.148		
7,000.0	6,974.0	6,108.0	5,998.3	15.8	22.3	-94.05	4,664.5	656.7	4,823.3	4,795.1	28.26	170.663		
7,050.0	7,023.4	6,157.2	6,046.4	15.9	22.5	-27.69	4,674.3	653.6	4,827.2	4,798.9	28.23	170.992		
7,100.0	7,072.1	6,206.6	6,094.7	16.0	22.7	-18.82	4,684.2	650.4	4,826.7	4,798.6	28.04	172.142		
7,150.0	7,119.7	6,255.8	6,142.8	16.2	22.9	-14.13	4,694.0	647.3	4,821.8	4,794.1	27.69	174.136		
7,200.0	7,165.9	6,304.3	6,190.3	16.3	23.1	-11.31	4,703.7	644.1	4,812.7	4,785.5	27.19	177.012		
7,250.0	7,210.2	6,351.9	6,236.8	16.4	23.3	-9.45	4,713.2	641.1	4,799.3	4,772.8	26.54	180.823		
7,300.0	7,252.5	6,398.2	6,282.1	16.5	23.5	-8.15	4,722.5	638.1	4,781.8	4,756.0	25.76	185.633		
7,350.0	7,292.2	6,442.9	6,325.7	16.7	23.6	-7.20	4,731.4	635.2	4,760.3	4,735.4	24.86	191.514		
7,400.0	7,329.2	6,485.5	6,367.4	16.8	23.8	-6.48	4,739.9	632.5	4,734.9	4,711.1	23.85	198.537		
7,450.0	7,363.2	7,473.7	7,347.2	17.0	25.2	-7.88	4,835.9	601.7	4,698.8	4,674.8	24.01	195.699		
7,500.0	7,393.8	7,504.4	7,377.8	17.3	25.3	-7.62	4,835.9	601.7	4,659.5	4,636.7	22.84	203.968		
7,550.0	7,421.0	7,531.5	7,405.0	17.5	25.3	-7.51	4,835.9	601.7	4,617.6	4,596.0	21.67	213.085		
7,600.0	7,444.3	7,554.9	7,428.3	17.8	25.3	-7.58	4,835.9	601.7	4,573.5	4,553.0	20.54	222.685		
7,650.0	7,463.8	7,574.3	7,447.8	18.2	25.3	-7.86	4,835.9	601.7	4,527.6	4,508.0	19.51	232.041		
7,700.0	7,479.2	7,589.7	7,463.2	18.5	25.3	-8.50	4,835.9	601.7	4,480.1	4,461.4	18.68	239.777		
7,750.0	7,490.4	7,600.9	7,474.4	18.9	25.3	-9.92	4,835.9	601.7	4,431.4	4,413.1	18.23	243.048		
7,800.0	7,497.4	7,607.9	7,481.4	19.3	25.4	-14.05	4,835.9	601.7	4,381.9	4,363.0	18.85	232.408		
7,850.0	7,500.0	7,610.5	7,484.0	19.8	25.4	-60.89	4,835.9	601.7	4,332.0	4,295.4	36.56	118.490		
7,855.2	7,500.0	7,610.5	7,484.0	19.9	25.4	-90.00	4,835.9	601.7	4,326.8	4,285.8	41.03	105.461		
7,900.0	7,500.0	7,610.5	7,484.0	20.3	25.4	-90.00	4,835.9	601.7	4,282.0	4,240.4	41.55	103.065		
8,000.0	7,500.0	7,610.5	7,484.0	21.3	25.4	-90.00	4,835.9	601.7	4,182.0	4,139.2	42.77	97.771		
8,100.0	7,500.0	7,610.5	7,484.0	22.5	25.4	-90.00	4,835.9	601.7	4,082.0	4,037.9	44.08	92.604		
8,200.0	7,500.0	7,610.5	7,484.0	23.7	25.4	-90.00	4,835.9	601.7	3,982.0	3,936.6	45.45	87.609		
8,300.0	7,500.0	7,610.5	7,484.0	25.0	25.4	-90.00	4,835.9	601.7	3,882.0	3,835.2	46.88	82.812		
8,400.0	7,500.0	7,610.5	7,484.0	26.3	25.4	-90.00	4,835.9	601.7	3,782.1	3,733.7	48.35	78.228		
8,500.0	7,500.0	7,610.5	7,484.0	27.7	25.4	-90.00	4,835.9	601.7	3,682.1	3,632.2	49.85	73.861		
8,600.0	7,500.0	7,610.5	7,484.0	29.1	25.4	-90.00	4,835.9	601.7	3,582.1	3,530.7	51.39	69.708		
8,700.0	7,500.0	7,610.5	7,484.0	30.5	25.4	-90.00	4,835.9	601.7	3,482.1	3,429.2	52.95	65.765		
8,800.0	7,500.0	7,610.5	7,484.0	32.0	25.4	-90.00	4,835.9	601.7	3,382.1	3,327.6	54.53	62.024		
8,900.0	7,500.0	7,610.5	7,484.0	33.5	25.4	-90.00	4,835.9	601.7	3,282.2	3,226.0	56.13	58.475		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 2-4-6 (EXISTING) - ENCANA WELL - PL												Offset Site Error:	0.0 ft
Survey Program: 775-Geolink 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)			
9,000.0	7,500.0	7,610.5	7,484.0	35.1	25.4	-90.00	4,835.9	601.7	3,182.2	3,124.4	57.74	55.107	
9,100.0	7,500.0	7,610.5	7,484.0	36.6	25.4	-90.00	4,835.9	601.7	3,082.2	3,022.8	59.37	51.912	
9,200.0	7,500.0	7,610.5	7,484.0	38.2	25.4	-90.00	4,835.9	601.7	2,982.2	2,921.2	61.01	48.877	
9,300.0	7,500.0	7,610.5	7,484.0	39.8	25.4	-90.00	4,835.9	601.7	2,882.2	2,819.6	62.66	45.995	
9,400.0	7,500.0	7,610.5	7,484.0	41.4	25.4	-90.00	4,835.9	601.7	2,782.3	2,717.9	64.32	43.254	
9,500.0	7,500.0	7,610.5	7,484.0	43.0	25.4	-90.00	4,835.9	601.7	2,682.3	2,616.3	65.99	40.646	
9,600.0	7,500.0	7,610.5	7,484.0	44.6	25.4	-90.00	4,835.9	601.7	2,582.3	2,514.7	67.67	38.163	
9,700.0	7,500.0	7,610.5	7,484.0	46.2	25.4	-90.00	4,835.9	601.7	2,482.4	2,413.0	69.35	35.797	
9,800.0	7,500.0	7,610.5	7,484.0	47.9	25.4	-90.00	4,835.9	601.7	2,382.4	2,311.4	71.03	33.540	
9,900.0	7,500.0	7,610.5	7,484.0	49.5	25.4	-90.00	4,835.9	601.7	2,282.4	2,209.7	72.72	31.386	
10,000.0	7,500.0	7,610.5	7,484.0	51.2	25.4	-90.00	4,835.9	601.7	2,182.5	2,108.1	74.42	29.328	
10,046.2	7,500.0	7,610.5	7,484.0	51.9	25.4	-90.00	4,835.9	601.7	2,136.3	2,061.1	75.20	28.408	
10,100.0	7,500.0	7,610.5	7,484.0	52.8	25.4	-90.00	4,835.9	601.7	2,082.5	2,006.5	76.07	27.377	
10,200.0	7,500.0	7,610.5	7,484.0	54.5	25.4	-90.00	4,835.9	601.7	1,982.5	1,904.9	77.67	25.524	
10,300.0	7,500.0	7,610.5	7,484.0	56.1	25.4	90.00	4,835.9	601.7	1,882.5	1,803.3	79.26	23.751	
10,400.0	7,500.0	7,610.5	7,484.0	57.8	25.4	90.00	4,835.9	601.7	1,782.6	1,701.7	80.83	22.053	
10,500.0	7,500.0	7,610.5	7,484.0	59.5	25.4	90.00	4,835.9	601.7	1,682.7	1,600.3	82.38	20.425	
10,600.0	7,500.0	7,610.5	7,484.0	61.1	25.4	90.00	4,835.9	601.7	1,582.8	1,498.9	83.92	18.862	
10,700.0	7,500.0	7,610.5	7,484.0	62.8	25.4	90.00	4,835.9	601.7	1,483.2	1,397.8	85.43	17.362	
10,800.0	7,500.0	7,610.5	7,484.0	64.4	25.4	90.00	4,835.9	601.7	1,383.8	1,296.8	86.92	15.919	
10,906.2	7,500.0	7,610.5	7,484.0	66.2	25.4	90.00	4,835.9	601.7	1,278.5	1,190.0	88.49	14.448	
11,000.0	7,500.0	7,610.5	7,484.0	67.7	25.4	90.00	4,835.9	601.7	1,185.8	1,095.7	90.11	13.160	
11,100.0	7,500.0	7,610.5	7,484.0	69.4	25.4	90.00	4,835.9	601.7	1,087.2	995.4	91.83	11.839	
11,200.0	7,500.0	7,610.5	7,484.0	71.0	25.4	90.00	4,835.9	601.7	988.9	895.3	93.56	10.569	
11,256.2	7,500.0	7,610.5	7,484.0	72.0	25.4	90.00	4,835.9	601.7	933.8	839.3	94.54	9.878	
11,300.0	7,500.0	7,610.5	7,484.0	72.7	25.4	90.00	4,835.9	601.7	890.9	795.5	95.41	9.338	
11,400.0	7,500.0	7,610.5	7,484.0	74.4	25.4	90.00	4,835.9	601.7	793.1	695.7	97.38	8.144	
11,500.0	7,500.0	7,610.5	7,484.0	76.1	25.4	90.00	4,835.9	601.7	695.5	596.1	99.33	7.002	
11,600.0	7,500.0	7,610.5	7,484.0	77.8	25.4	90.00	4,835.9	601.7	598.2	496.9	101.25	5.908	
11,700.0	7,500.0	7,610.5	7,484.0	79.5	25.4	90.00	4,835.9	601.7	501.5	398.3	103.14	4.862	
11,800.0	7,500.0	7,610.5	7,484.0	81.2	25.4	90.00	4,835.9	601.7	405.8	300.8	105.01	3.864	
11,900.0	7,500.0	7,610.5	7,484.0	82.9	25.4	90.00	4,835.9	601.7	312.0	205.2	106.85	2.920	
12,000.0	7,500.0	7,610.5	7,484.0	84.7	25.4	90.00	4,835.9	601.7	222.9	114.2	108.66	2.051	
12,100.0	7,500.0	7,610.5	7,484.0	86.4	25.4	90.00	4,835.9	601.7	146.9	36.4	110.45	1.330 Level 3	
12,169.2	7,500.0	7,610.5	7,484.0	87.6	25.4	90.00	4,835.9	601.7	116.6	4.9	111.66	1.044 Level 2	
12,192.9	7,500.0	7,610.5	7,484.0	88.0	25.4	90.00	4,835.9	601.7	114.2	2.1	112.08	1.019 Level 2, CC, ES, SF	
12,200.0	7,500.0	7,610.5	7,484.0	88.1	25.4	90.00	4,835.9	601.7	114.4	2.2	112.20	1.019 Level 2	
12,300.0	7,500.0	7,610.5	7,484.0	89.8	25.4	90.00	4,835.9	601.7	156.5	42.6	113.94	1.374 Level 3	
12,400.0	7,500.0	7,610.5	7,484.0	91.6	25.4	90.00	4,835.9	601.7	236.5	120.8	115.67	2.044	
12,500.0	7,500.0	7,610.5	7,484.0	93.3	25.4	90.00	4,835.9	601.7	327.6	210.2	117.41	2.790	
12,600.0	7,500.0	7,610.5	7,484.0	95.0	25.4	90.00	4,835.9	601.7	422.8	303.6	119.15	3.548	
12,700.0	7,500.0	7,610.5	7,484.0	96.8	25.4	90.00	4,835.9	601.7	519.8	398.9	120.89	4.300	
12,800.0	7,500.0	7,610.5	7,484.0	98.5	25.4	90.00	4,835.9	601.7	617.7	495.1	122.62	5.037	
12,900.0	7,500.0	7,610.5	7,484.0	100.2	25.4	90.00	4,835.9	601.7	716.2	591.9	124.36	5.759	
13,000.0	7,500.0	7,610.5	7,484.0	102.0	25.4	90.00	4,835.9	601.7	815.1	689.0	126.10	6.464	
13,100.0	7,500.0	7,610.5	7,484.0	103.7	25.4	90.00	4,835.9	601.7	914.2	786.4	127.84	7.151	
13,200.0	7,500.0	7,610.5	7,484.0	105.4	25.4	90.00	4,835.9	601.7	1,013.5	883.9	129.59	7.821	
13,300.0	7,500.0	7,610.5	7,484.0	107.2	25.4	90.00	4,835.9	601.7	1,112.9	981.6	131.33	8.475	
13,400.0	7,500.0	7,610.5	7,484.0	108.9	25.4	90.00	4,835.9	601.7	1,212.5	1,079.4	133.07	9.112	
13,500.0	7,500.0	7,610.5	7,484.0	110.7	25.4	90.00	4,835.9	601.7	1,312.1	1,177.2	134.81	9.733	
13,600.0	7,500.0	7,610.5	7,484.0	112.4	25.4	90.00	4,835.9	601.7	1,411.7	1,275.1	136.55	10.338	
13,700.0	7,500.0	7,610.5	7,484.0	114.1	25.4	90.00	4,835.9	601.7	1,511.4	1,373.1	138.30	10.929	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design											S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 2-4-6 (EXISTING) - ENCANA WELL - PL		Offset Site Error:		0.0 ft
Survey Program:											775-Geolink 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			
13,800.0	7,500.0	7,610.5	7,484.0	115.9	25.4	90.00	4,835.9	601.7	1,611.1	1,471.1	140.04	11.505			
13,900.0	7,500.0	7,610.5	7,484.0	117.6	25.4	90.00	4,835.9	601.7	1,710.9	1,569.1	141.78	12.067			
14,000.0	7,500.0	7,610.5	7,484.0	119.4	25.4	90.00	4,835.9	601.7	1,810.7	1,667.2	143.53	12.616			
14,100.0	7,500.0	7,610.5	7,484.0	121.1	25.4	90.00	4,835.9	601.7	1,910.5	1,765.2	145.27	13.151			
14,200.0	7,500.0	7,610.5	7,484.0	122.8	25.4	90.00	4,835.9	601.7	2,010.3	1,863.3	147.02	13.674			
14,300.0	7,500.0	7,610.5	7,484.0	124.6	25.4	90.00	4,835.9	601.7	2,110.2	1,961.4	148.76	14.185			
14,400.0	7,500.0	7,610.5	7,484.0	126.3	25.4	90.00	4,835.9	601.7	2,210.0	2,059.5	150.51	14.684			
14,455.0	7,500.0	7,610.5	7,484.0	127.3	25.4	90.00	4,835.9	601.7	2,265.0	2,113.5	151.47	14.954			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 2-8-6 (EXISTING) - ENCANA WELL - SU										Offset Site Error:		0.0 ft	
Survey Program: 76-Geolink 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	14.63	3,612.2	943.1	3,733.3				
100.0	100.0	653.3	650.0	0.2	1.5	15.12	3,559.4	961.9	3,730.2	3,728.6	1.61	2,312.749	
200.0	200.0	783.9	779.0	0.3	1.9	15.16	3,539.0	958.7	3,714.5	3,712.3	2.20	1,687.322	
300.0	300.0	1,196.8	1,183.5	0.5	3.5	15.15	3,459.9	936.8	3,695.6	3,691.6	3.97	930.013	
400.0	400.0	1,284.5	1,268.5	0.7	3.9	15.16	3,439.1	931.8	3,671.3	3,666.7	4.54	809.433	
500.0	500.0	1,419.3	1,399.2	0.8	4.5	15.16	3,407.1	923.1	3,646.6	3,641.3	5.33	684.646	
600.0	600.0	1,525.4	1,501.9	1.0	5.0	-81.53	3,381.6	914.7	3,621.3	3,617.6	3.70	977.839	
700.0	700.0	1,821.1	1,785.0	1.2	6.5	-82.01	3,300.3	889.5	3,590.5	3,586.2	4.37	822.379	
800.0	799.9	1,896.0	1,856.3	1.4	6.9	-82.39	3,278.3	883.7	3,559.5	3,554.8	4.67	762.028	
900.0	899.7	1,937.8	1,896.2	1.6	7.2	-82.75	3,266.3	880.7	3,529.3	3,524.3	4.93	716.127	
1,000.0	999.4	1,982.0	1,938.7	1.8	7.4	-83.11	3,254.4	877.4	3,500.3	3,495.1	5.20	672.871	
1,026.5	1,025.7	1,997.2	1,953.3	1.8	7.4	-83.21	3,250.5	876.2	3,492.8	3,487.6	5.28	661.267	
1,100.0	1,098.9	2,061.7	2,015.4	2.0	7.8	-83.34	3,234.1	870.4	3,472.2	3,466.6	5.55	626.179	
1,200.0	1,198.5	2,225.3	2,172.3	2.2	8.6	-83.66	3,190.1	856.0	3,442.5	3,436.5	6.04	570.014	
1,300.0	1,298.1	2,392.4	2,331.7	2.4	9.6	-84.00	3,142.7	840.5	3,411.6	3,405.1	6.55	521.188	
1,400.0	1,397.7	2,479.0	2,414.1	2.7	10.0	-84.20	3,117.4	831.6	3,379.8	3,372.9	6.92	488.435	
1,500.0	1,497.3	2,546.4	2,478.3	2.9	10.4	-84.34	3,098.1	825.0	3,348.6	3,341.4	7.26	461.031	
1,600.0	1,596.8	2,714.8	2,638.7	3.1	11.4	-84.68	3,048.7	810.8	3,317.4	3,309.6	7.79	426.124	
1,700.0	1,696.4	2,838.0	2,755.2	3.3	12.1	-84.92	3,009.9	800.2	3,283.8	3,275.5	8.23	398.916	
1,800.0	1,796.0	2,903.3	2,816.9	3.6	12.5	-85.07	2,989.5	793.9	3,250.3	3,241.8	8.58	378.873	
1,900.0	1,895.6	2,969.2	2,879.4	3.8	12.8	-85.21	2,969.7	787.8	3,218.0	3,209.1	8.93	360.471	
2,000.0	1,995.2	3,055.2	2,961.2	4.0	13.3	-85.39	2,944.1	780.8	3,186.4	3,177.0	9.31	342.084	
2,100.0	2,094.7	3,163.1	3,063.7	4.3	13.9	-85.66	2,912.3	769.9	3,154.6	3,144.8	9.75	323.564	
2,200.0	2,194.3	3,243.3	3,139.9	4.5	14.4	-85.86	2,888.6	761.5	3,122.7	3,112.6	10.13	308.159	
2,300.0	2,293.9	3,370.9	3,261.0	4.7	15.1	-86.20	2,850.6	748.0	3,090.6	3,080.0	10.62	291.088	
2,400.0	2,393.5	3,437.0	3,323.7	5.0	15.5	-86.39	2,831.1	740.8	3,058.6	3,047.6	10.98	278.509	
2,500.0	2,493.0	3,541.1	3,422.5	5.2	16.1	-86.69	2,800.3	729.4	3,026.8	3,015.4	11.43	264.836	
2,600.0	2,592.6	3,608.0	3,486.1	5.4	16.5	-86.88	2,780.9	722.0	2,995.5	2,983.7	11.80	253.791	
2,700.0	2,692.2	3,677.6	3,552.4	5.7	16.9	-87.10	2,761.3	714.4	2,965.0	2,952.8	12.19	243.310	
2,800.0	2,791.8	3,783.9	3,653.8	5.9	17.5	-87.42	2,731.4	702.9	2,934.8	2,922.2	12.65	232.027	
2,900.0	2,891.4	3,894.8	3,759.4	6.1	18.1	-87.72	2,698.9	692.9	2,903.8	2,890.7	13.11	221.510	
3,000.0	2,990.9	3,950.0	3,812.0	6.4	18.4	-87.86	2,682.9	688.6	2,873.4	2,860.0	13.45	213.564	
3,100.0	3,090.5	4,036.0	3,894.3	6.6	18.8	-88.06	2,658.7	682.7	2,844.1	2,830.3	13.86	205.209	
3,200.0	3,190.1	4,139.1	3,993.1	6.8	19.4	-88.32	2,630.0	675.3	2,815.0	2,800.7	14.31	196.734	
3,300.0	3,289.7	4,317.6	4,163.0	7.1	20.4	-88.84	2,577.7	659.5	2,784.5	2,769.5	14.94	186.394	
3,400.0	3,389.2	4,378.0	4,220.3	7.3	20.8	-89.02	2,559.6	653.9	2,753.0	2,737.6	15.31	179.824	
3,500.0	3,488.8	4,430.7	4,270.6	7.6	21.0	-89.18	2,544.4	649.4	2,722.8	2,707.1	15.66	173.834	
3,600.0	3,588.4	4,500.1	4,337.0	7.8	21.4	-89.39	2,525.1	643.7	2,693.8	2,677.7	16.05	167.787	
3,700.0	3,688.0	4,615.7	4,447.8	8.0	22.0	-89.73	2,493.2	634.9	2,665.2	2,648.7	16.55	161.060	
3,800.0	3,787.6	4,701.4	4,529.7	8.3	22.5	-89.95	2,468.8	629.5	2,636.0	2,619.0	16.96	155.430	
3,900.0	3,887.1	4,776.5	4,601.8	8.5	22.9	-90.12	2,447.7	626.5	2,607.5	2,590.1	17.34	150.358	
4,000.0	3,986.7	4,842.8	4,665.5	8.7	23.2	-90.27	2,429.6	623.9	2,579.8	2,562.1	17.71	145.669	
4,100.0	4,086.3	4,892.0	4,712.9	9.0	23.4	-90.39	2,416.8	621.7	2,553.6	2,535.5	18.05	141.485	
4,200.0	4,185.9	4,954.7	4,773.6	9.2	23.7	-90.55	2,401.5	618.9	2,528.8	2,510.4	18.41	137.324	
4,300.0	4,285.4	5,018.2	4,835.4	9.4	24.0	-90.70	2,387.0	616.3	2,505.6	2,486.9	18.78	133.414	
4,400.0	4,385.0	5,089.1	4,904.6	9.7	24.3	-90.87	2,371.5	614.0	2,483.6	2,464.4	19.16	129.621	
4,500.0	4,484.6	5,149.0	4,963.1	9.9	24.5	-91.01	2,359.0	612.1	2,462.6	2,443.1	19.52	126.173	
4,600.0	4,584.2	5,234.0	5,046.4	10.2	24.8	-91.22	2,342.2	609.5	2,442.8	2,422.8	19.93	122.568	
4,700.0	4,683.8	5,291.0	5,102.4	10.4	25.0	-91.36	2,331.6	607.9	2,424.2	2,403.9	20.28	119.524	
4,800.0	4,783.3	5,348.5	5,159.1	10.6	25.2	-91.50	2,321.9	606.6	2,407.2	2,386.6	20.63	116.664	
4,900.0	4,882.9	5,406.0	5,215.9	10.9	25.4	-91.63	2,313.1	605.6	2,392.0	2,371.0	20.98	113.990	
5,000.0	4,982.5	5,457.7	5,267.1	11.1	25.5	-91.75	2,306.1	604.8	2,378.6	2,357.3	21.33	111.542	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 2-8-6 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 76-Geolink 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	5,082.1	5,513.6	5,322.7	11.3	25.6	-91.88	2,299.6	603.9	2,367.2	2,345.5	21.68	109.211	
5,200.0	5,181.7	5,577.0	5,385.7	11.6	25.8	-92.03	2,293.4	603.0	2,357.4	2,335.4	22.04	106.957	
5,300.0	5,281.2	5,632.4	5,440.9	11.8	25.9	-92.17	2,288.9	602.1	2,349.4	2,327.0	22.39	104.909	
5,400.0	5,380.8	5,695.9	5,504.2	12.0	26.0	-92.33	2,284.7	600.9	2,343.1	2,320.3	22.77	102.910	
5,500.0	5,480.4	5,748.0	5,556.3	12.3	26.0	-92.47	2,282.0	599.8	2,338.2	2,315.1	23.12	101.141	
5,600.0	5,580.0	5,833.6	5,641.8	12.5	26.1	-92.71	2,278.6	597.9	2,334.6	2,311.1	23.54	99.156	
5,700.0	5,679.5	5,919.0	5,727.1	12.8	26.2	-92.94	2,276.5	595.9	2,332.4	2,308.5	23.97	97.301	
5,800.0	5,779.1	5,982.6	5,790.7	13.0	26.3	-93.12	2,275.7	594.4	2,331.2	2,306.9	24.35	95.724	
5,884.2	5,863.0	6,051.3	5,859.4	13.2	26.3	-93.32	2,275.2	592.6	2,331.0	2,306.2	24.71	94.324	
5,900.0	5,878.7	6,064.2	5,872.2	13.2	26.3	-93.36	2,275.2	592.2	2,331.0	2,306.2	24.78	94.069	
6,000.0	5,978.3	6,166.5	5,974.5	13.5	26.4	-93.66	2,275.0	589.4	2,331.2	2,306.0	25.25	92.328	
6,100.0	6,077.9	6,275.6	6,083.6	13.7	26.5	-93.95	2,274.2	587.2	2,331.0	2,305.3	25.72	90.614	
6,186.4	6,163.9	6,355.4	6,163.4	13.9	26.6	-94.16	2,273.6	586.1	2,330.9	2,304.8	26.10	89.317	
6,200.0	6,177.4	6,368.0	6,176.0	13.9	26.6	-94.19	2,273.5	586.0	2,330.9	2,304.7	26.16	89.118	
6,300.0	6,277.0	6,459.1	6,267.2	14.2	26.7	-94.42	2,273.2	585.1	2,331.1	2,304.5	26.58	87.698	
6,400.0	6,376.6	6,547.2	6,355.2	14.4	26.7	-94.64	2,273.2	584.3	2,331.8	2,304.8	27.00	86.356	
6,500.0	6,476.2	6,639.7	6,447.6	14.7	26.8	-94.87	2,273.6	583.4	2,333.1	2,305.6	27.43	85.039	
6,600.0	6,575.7	6,740.3	6,548.3	14.9	26.9	-95.12	2,274.2	582.1	2,334.4	2,306.5	27.89	83.708	
6,700.0	6,675.3	6,833.5	6,641.5	15.1	26.9	-95.37	2,274.7	580.6	2,335.8	2,307.5	28.33	82.458	
6,800.0	6,774.9	6,922.7	6,730.7	15.4	27.0	-95.61	2,275.6	579.0	2,337.7	2,308.9	28.76	81.281	
6,900.0	6,874.5	7,011.3	6,819.2	15.6	27.0	-95.85	2,276.9	577.2	2,340.0	2,310.8	29.19	80.152	
6,949.9	6,924.1	7,055.3	6,863.2	15.7	27.1	-95.97	2,277.7	576.2	2,341.4	2,312.0	29.41	79.607	
7,000.0	6,974.0	7,099.5	6,907.4	15.8	27.1	-95.89	2,278.6	575.2	2,340.7	2,311.2	29.52	79.293	
7,050.0	7,023.4	7,166.8	6,974.7	15.9	27.2	-95.63	2,279.9	573.4	2,335.7	2,306.2	29.52	79.112	
7,100.0	7,072.1	7,249.8	7,057.6	16.0	27.3	-20.93	2,280.5	570.8	2,325.7	2,296.3	29.41	79.075	
7,150.0	7,119.7	7,314.9	7,122.7	16.2	27.3	-16.42	2,280.1	568.5	2,310.9	2,281.8	29.10	79.405	
7,200.0	7,165.9	7,363.7	7,171.5	16.3	27.4	-13.74	2,279.7	566.8	2,291.8	2,263.2	28.61	80.114	
7,250.0	7,210.2	7,410.6	7,218.3	16.4	27.4	-12.06	2,279.2	565.2	2,268.8	2,240.8	27.98	81.100	
7,300.0	7,252.5	7,455.1	7,262.8	16.5	27.5	-10.98	2,278.7	563.9	2,241.9	2,214.7	27.22	82.353	
7,350.0	7,292.2	7,490.2	7,297.9	16.7	27.5	-10.27	2,278.3	562.9	2,211.5	2,185.2	26.35	83.924	
7,400.0	7,329.2	7,522.1	7,329.8	16.8	27.5	-9.86	2,278.0	562.1	2,177.9	2,152.5	25.40	85.730	
7,450.0	7,363.2	7,551.5	7,359.2	17.0	27.6	-9.70	2,277.8	561.4	2,141.2	2,116.8	24.42	87.701	
7,500.0	7,393.8	7,578.2	7,385.8	17.3	27.6	-9.77	2,277.6	560.9	2,101.8	2,078.4	23.43	89.719	
7,550.0	7,421.0	7,601.9	7,409.5	17.5	27.6	-10.11	2,277.5	560.4	2,060.0	2,037.5	22.49	91.582	
7,600.0	7,444.3	7,622.4	7,430.0	17.8	27.6	-10.79	2,277.5	560.1	2,015.9	1,994.2	21.69	92.944	
7,650.0	7,463.8	7,639.9	7,447.5	18.2	27.7	-11.98	2,277.5	559.8	1,970.0	1,948.9	21.13	93.223	
7,700.0	7,479.2	7,654.0	7,461.7	18.5	27.7	-14.09	2,277.5	559.6	1,922.6	1,901.5	21.04	91.394	
7,750.0	7,490.4	7,664.4	7,472.0	18.9	27.7	-18.24	2,277.5	559.4	1,874.0	1,852.0	21.95	85.383	
7,800.0	7,497.4	7,670.9	7,478.5	19.3	27.7	-28.91	2,277.5	559.4	1,824.6	1,798.5	26.06	70.005	
7,850.0	7,500.0	7,673.3	7,480.9	19.8	27.7	-77.19	2,277.5	559.3	1,774.7	1,732.2	42.49	41.763	
7,855.2	7,500.0	7,673.4	7,481.0	19.9	27.7	-87.89	2,277.5	559.3	1,769.5	1,726.1	43.48	40.702	
7,900.0	7,500.0	7,673.4	7,481.0	20.3	27.7	-87.92	2,277.5	559.3	1,724.8	1,680.8	44.00	39.203	
8,000.0	7,500.0	7,673.5	7,481.1	21.3	27.7	-88.00	2,277.5	559.3	1,624.9	1,579.7	45.23	35.929	
8,100.0	7,500.0	7,673.6	7,481.2	22.5	27.7	-88.07	2,277.5	559.3	1,525.0	1,478.5	46.53	32.772	
8,200.0	7,500.0	7,673.7	7,481.3	23.7	27.7	-88.14	2,277.5	559.3	1,425.2	1,377.3	47.91	29.748	
8,300.0	7,500.0	7,673.8	7,481.4	25.0	27.7	-88.22	2,277.5	559.3	1,325.4	1,276.0	49.34	26.864	
8,400.0	7,500.0	7,673.9	7,481.5	26.3	27.7	-88.29	2,277.5	559.3	1,225.6	1,174.8	50.81	24.122	
8,500.0	7,500.0	7,674.0	7,481.7	27.7	27.7	-88.37	2,277.5	559.3	1,125.8	1,073.5	52.31	21.520	
8,600.0	7,500.0	7,674.1	7,481.8	29.1	27.7	-88.44	2,277.5	559.3	1,026.1	972.3	53.85	19.054	
8,700.0	7,500.0	7,674.3	7,481.9	30.5	27.7	-88.52	2,277.5	559.3	926.5	871.0	55.41	16.719	
8,800.0	7,500.0	7,674.4	7,482.0	32.0	27.7	-88.60	2,277.5	559.3	826.9	769.9	57.00	14.507	
8,900.0	7,500.0	7,674.5	7,482.1	33.5	27.7	-88.67	2,277.5	559.3	727.5	668.9	58.60	12.414	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 2-8-6 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 76-Geolink 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
9,000.0	7,500.0	7,674.6	7,482.2	35.1	27.7	-88.75	2,277.5	559.3	628.2	568.0	60.22	10.432	
9,100.0	7,500.0	7,674.7	7,482.3	36.6	27.7	-88.83	2,277.5	559.3	529.2	467.4	61.85	8.557	
9,200.0	7,500.0	7,674.8	7,482.4	38.2	27.7	-88.91	2,277.5	559.3	430.7	367.2	63.49	6.784	
9,300.0	7,500.0	7,674.9	7,482.6	39.8	27.7	-88.99	2,277.5	559.3	333.1	268.0	65.14	5.114	
9,400.0	7,500.0	7,675.0	7,482.7	41.4	27.7	-89.07	2,277.5	559.3	237.5	170.7	66.80	3.555	
9,500.0	7,500.0	7,675.2	7,482.8	43.0	27.7	-89.16	2,277.5	559.3	147.8	79.3	68.47	2.158	
9,600.0	7,500.0	7,675.3	7,482.9	44.6	27.7	-89.24	2,277.5	559.3	85.3	15.1	70.15	1.216	Level 2
9,622.8	7,500.0	7,675.3	7,482.9	45.0	27.7	-89.26	2,277.5	559.3	82.2	11.7	70.53	1.165	Level 2, CC, ES, SF
9,700.0	7,500.0	7,675.4	7,483.0	46.2	27.7	-89.32	2,277.5	559.3	112.7	40.9	71.83	1.570	
9,800.0	7,500.0	7,675.5	7,483.1	47.9	27.7	-89.41	2,277.5	559.3	195.3	121.8	73.52	2.657	
9,900.0	7,500.0	7,675.6	7,483.3	49.5	27.7	-89.49	2,277.5	559.3	289.1	213.9	75.21	3.844	
10,000.0	7,500.0	7,675.8	7,483.4	51.2	27.7	-89.58	2,277.5	559.3	386.0	309.1	76.90	5.020	
10,046.2	7,500.0	7,675.8	7,483.5	51.9	27.7	-89.62	2,277.5	559.3	431.3	353.6	77.69	5.551	
10,100.0	7,500.0	7,675.9	7,483.5	52.8	27.7	-89.68	2,277.5	559.3	484.2	405.7	78.45	6.172	
10,200.0	7,500.0	7,676.1	7,483.7	54.5	27.7	-89.80	2,277.5	559.3	582.7	502.9	79.85	7.297	
10,300.0	7,500.0	7,676.2	7,483.8	56.1	27.7	-89.92	2,277.5	559.3	681.4	600.2	81.24	8.388	
10,400.0	7,500.0	7,676.4	7,484.0	57.8	27.7	-90.02	2,277.5	559.3	780.2	697.6	82.61	9.445	
10,500.0	7,500.0	7,676.7	7,484.3	59.5	27.7	-90.12	2,277.5	559.3	879.1	795.1	83.96	10.470	
10,600.0	7,500.0	7,676.9	7,484.5	61.1	27.7	-90.20	2,277.5	559.3	977.9	892.6	85.29	11.466	
10,700.0	7,500.0	7,677.2	7,484.8	62.8	27.7	-90.27	2,277.5	559.3	1,076.7	990.1	86.60	12.433	
10,800.0	7,500.0	7,677.5	7,485.1	64.4	27.7	-90.34	2,277.5	559.3	1,175.5	1,087.6	87.89	13.374	
10,906.2	7,500.0	7,677.8	7,485.4	66.2	27.7	-90.40	2,277.5	559.3	1,280.3	1,191.0	89.24	14.347	
11,000.0	7,500.0	7,678.1	7,485.8	67.7	27.7	-90.48	2,277.5	559.3	1,372.9	1,282.1	90.86	15.111	
11,100.0	7,500.0	7,678.5	7,486.1	69.4	27.7	-90.58	2,277.5	559.3	1,471.8	1,379.2	92.58	15.898	
11,200.0	7,500.0	7,678.8	7,486.5	71.0	27.7	-90.67	2,277.5	559.3	1,570.9	1,476.6	94.31	16.657	
11,256.2	7,500.0	7,679.0	7,486.7	72.0	27.7	-90.73	2,277.5	559.2	1,626.6	1,531.3	95.28	17.071	
11,300.0	7,500.0	7,679.2	7,486.8	72.7	27.7	-90.82	2,277.5	559.2	1,670.1	1,573.8	96.24	17.353	
11,400.0	7,500.0	7,679.5	7,487.1	74.4	27.7	-91.08	2,277.5	559.2	1,769.5	1,671.1	98.41	17.981	
11,500.0	7,500.0	7,679.8	7,487.5	76.1	27.7	-91.46	2,277.5	559.2	1,869.1	1,768.6	100.54	18.590	
11,600.0	7,500.0	7,680.1	7,487.7	77.8	27.7	-92.11	2,277.5	559.2	1,969.0	1,866.3	102.63	19.184	
11,700.0	7,500.0	7,680.4	7,488.0	79.5	27.7	-93.46	2,277.5	559.2	2,068.9	1,964.3	104.62	19.776	
11,800.0	7,500.0	7,680.6	7,488.3	81.2	27.7	-98.23	2,277.5	559.2	2,168.8	2,063.0	105.82	20.495	
11,900.0	7,500.0	7,680.9	7,488.5	82.9	27.7	115.78	2,277.5	559.2	2,268.8	2,170.0	98.79	22.965	
12,000.0	7,500.0	7,681.1	7,488.7	84.7	27.7	95.38	2,277.5	559.2	2,368.8	2,258.4	110.47	21.442	
12,100.0	7,500.0	7,681.2	7,488.9	86.4	27.7	93.03	2,277.5	559.2	2,468.8	2,356.0	112.76	21.893	
12,169.2	7,500.0	7,681.4	7,489.0	87.6	27.7	92.33	2,277.5	559.2	2,537.9	2,423.7	114.18	22.228	
12,200.0	7,500.0	7,681.4	7,489.0	88.1	27.7	92.35	2,277.5	559.2	2,568.7	2,454.0	114.71	22.393	
12,300.0	7,500.0	7,681.6	7,489.2	89.8	27.7	92.43	2,277.5	559.2	2,668.6	2,552.1	116.44	22.918	
12,400.0	7,500.0	7,681.7	7,489.3	91.6	27.7	92.50	2,277.5	559.2	2,768.5	2,650.3	118.17	23.428	
12,500.0	7,500.0	7,681.9	7,489.5	93.3	27.7	92.57	2,277.5	559.2	2,868.4	2,748.5	119.90	23.923	
12,600.0	7,500.0	7,682.0	7,489.6	95.0	27.7	92.65	2,277.5	559.2	2,968.3	2,846.7	121.63	24.405	
12,700.0	7,500.0	7,682.2	7,489.8	96.8	27.7	92.72	2,277.5	559.2	3,068.2	2,944.9	123.36	24.872	
12,800.0	7,500.0	7,682.3	7,490.0	98.5	27.7	92.80	2,277.5	559.2	3,168.1	3,043.0	125.09	25.327	
12,900.0	7,500.0	7,682.5	7,490.1	100.2	27.7	92.87	2,277.5	559.2	3,268.1	3,141.2	126.82	25.770	
13,000.0	7,500.0	7,682.7	7,490.3	102.0	27.7	92.95	2,277.5	559.2	3,368.0	3,239.4	128.55	26.200	
13,100.0	7,500.0	7,682.8	7,490.5	103.7	27.7	93.03	2,277.5	559.2	3,467.9	3,337.7	130.28	26.620	
13,200.0	7,500.0	7,683.0	7,490.6	105.4	27.7	93.11	2,277.5	559.2	3,567.9	3,435.9	132.01	27.028	
13,300.0	7,500.0	7,683.2	7,490.8	107.2	27.7	93.19	2,277.5	559.2	3,667.8	3,534.1	133.74	27.426	
13,400.0	7,500.0	7,683.4	7,491.0	108.9	27.7	93.27	2,277.5	559.2	3,767.8	3,632.3	135.47	27.813	
13,500.0	7,500.0	7,683.5	7,491.2	110.7	27.7	93.35	2,277.5	559.2	3,867.7	3,730.5	137.19	28.191	
13,600.0	7,500.0	7,683.7	7,491.3	112.4	27.7	93.44	2,277.5	559.2	3,967.7	3,828.7	138.92	28.560	
13,700.0	7,500.0	7,683.9	7,491.5	114.1	27.7	93.52	2,277.5	559.2	4,067.6	3,927.0	140.65	28.920	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												<b>Offset Site Error:</b>	0.0 ft
S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BEARDEN 2-8-6 (EXISTING) - ENCANA WELL - SU												<b>Offset Well Error:</b>	0.0 ft
Survey Program: 76-Geolink MWD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)			
13,800.0	7,500.0	7,684.1	7,491.7	115.9	27.7	93.60	2,277.5	559.2	4,167.6	4,025.2	142.38	29.271	
13,900.0	7,500.0	7,684.3	7,491.9	117.6	27.7	93.69	2,277.5	559.2	4,267.5	4,123.4	144.11	29.614	
14,000.0	7,500.0	7,684.4	7,492.1	119.4	27.7	93.78	2,277.5	559.2	4,367.5	4,221.6	145.83	29.948	
14,100.0	7,500.0	7,684.6	7,492.2	121.1	27.7	93.86	2,277.5	559.2	4,467.4	4,319.9	147.56	30.275	
14,200.0	7,500.0	7,684.8	7,492.4	122.8	27.7	93.95	2,277.5	559.2	4,567.4	4,418.1	149.29	30.595	
14,300.0	7,500.0	7,685.0	7,492.6	124.6	27.7	94.04	2,277.5	559.2	4,667.4	4,516.4	151.01	30.907	
14,400.0	7,500.0	7,685.2	7,492.8	126.3	27.7	94.13	2,277.5	559.2	4,767.3	4,614.6	152.74	31.213	
14,455.0	7,500.0	7,685.3	7,492.9	127.3	27.7	94.18	2,277.5	559.2	4,822.3	4,668.7	153.69	31.378	



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 2-6 (EXISTING) - NOBLE WELL - NO SURV												Offset Site Error:	0.0 ft
Survey Program: 8164-Geolink 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
8,400.0	7,500.0	7,453.0	7,453.0	26.3	13.0	90.00	6,293.6	691.4	5,240.1	5,203.2	36.94	141.867	
8,500.0	7,500.0	7,453.0	7,453.0	27.7	13.0	90.00	6,293.6	691.4	5,140.1	5,101.7	38.44	133.711	
8,600.0	7,500.0	7,453.0	7,453.0	29.1	13.0	90.00	6,293.6	691.4	5,040.1	5,000.1	39.98	126.074	
8,700.0	7,500.0	7,453.0	7,453.0	30.5	13.0	90.00	6,293.6	691.4	4,940.1	4,898.6	41.54	118.930	
8,800.0	7,500.0	7,453.0	7,453.0	32.0	13.0	90.00	6,293.6	691.4	4,840.1	4,797.0	43.12	112.248	
8,900.0	7,500.0	7,453.0	7,453.0	33.5	13.0	90.00	6,293.6	691.4	4,740.1	4,695.4	44.72	105.996	
9,000.0	7,500.0	7,453.0	7,453.0	35.1	13.0	90.00	6,293.6	691.4	4,640.1	4,593.8	46.34	100.142	
9,100.0	7,500.0	7,453.0	7,453.0	36.6	13.0	90.00	6,293.6	691.4	4,540.1	4,492.1	47.96	94.656	
9,200.0	7,500.0	7,453.0	7,453.0	38.2	13.0	90.00	6,293.6	691.4	4,440.1	4,390.5	49.60	89.510	
9,300.0	7,500.0	7,453.0	7,453.0	39.8	13.0	90.00	6,293.6	691.4	4,340.1	4,288.8	51.25	84.677	
9,400.0	7,500.0	7,453.0	7,453.0	41.4	13.0	90.00	6,293.6	691.4	4,240.1	4,187.2	52.91	80.131	
9,500.0	7,500.0	7,453.0	7,453.0	43.0	13.0	90.00	6,293.6	691.4	4,140.1	4,085.5	54.58	75.852	
9,600.0	7,500.0	7,453.0	7,453.0	44.6	13.0	90.00	6,293.6	691.4	4,040.1	3,983.8	56.26	71.817	
9,700.0	7,500.0	7,453.0	7,453.0	46.2	13.0	90.00	6,293.6	691.4	3,940.1	3,882.2	57.94	68.008	
9,800.0	7,500.0	7,453.0	7,453.0	47.9	13.0	90.00	6,293.6	691.4	3,840.1	3,780.5	59.62	64.408	
9,900.0	7,500.0	7,453.0	7,453.0	49.5	13.0	90.00	6,293.6	691.4	3,740.1	3,678.8	61.31	61.001	
10,000.0	7,500.0	7,453.0	7,453.0	51.2	13.0	90.00	6,293.6	691.4	3,640.1	3,577.1	63.01	57.773	
10,046.2	7,500.0	7,453.0	7,453.0	51.9	13.0	90.00	6,293.6	691.4	3,593.9	3,530.1	63.79	56.339	
10,100.0	7,500.0	7,453.0	7,453.0	52.8	13.0	90.00	6,293.6	691.4	3,540.1	3,475.5	64.61	54.794	
10,200.0	7,500.0	7,453.0	7,453.0	54.5	13.0	90.00	6,293.6	691.4	3,440.1	3,374.0	66.12	52.032	
10,300.0	7,500.0	7,453.0	7,453.0	56.1	13.0	90.00	6,293.6	691.4	3,340.2	3,272.6	67.61	49.402	
10,400.0	7,500.0	7,453.0	7,453.0	57.8	13.0	90.00	6,293.6	691.4	3,240.4	3,171.3	69.10	46.895	
10,500.0	7,500.0	7,453.0	7,453.0	59.5	13.0	90.00	6,293.6	691.4	3,140.7	3,070.1	70.57	44.504	
10,600.0	7,500.0	7,453.0	7,453.0	61.1	13.0	90.00	6,293.6	691.4	3,041.2	2,969.1	72.03	42.221	
10,700.0	7,500.0	7,453.0	7,453.0	62.8	13.0	90.00	6,293.6	691.4	2,941.9	2,868.4	73.47	40.039	
10,800.0	7,500.0	7,453.0	7,453.0	64.4	13.0	90.00	6,293.6	691.4	2,842.8	2,767.9	74.91	37.952	
10,906.2	7,500.0	7,453.0	7,453.0	66.2	13.0	90.00	6,293.6	691.4	2,738.1	2,661.7	76.41	35.834	
11,000.0	7,500.0	7,453.0	7,453.0	67.7	13.0	90.00	6,293.6	691.4	2,645.8	2,567.8	78.03	33.908	
11,100.0	7,500.0	7,453.0	7,453.0	69.4	13.0	90.00	6,293.6	691.4	2,547.5	2,467.8	79.76	31.941	
11,200.0	7,500.0	7,453.0	7,453.0	71.0	13.0	90.00	6,293.6	691.4	2,449.4	2,367.9	81.49	30.059	
11,256.2	7,500.0	7,453.0	7,453.0	72.0	13.0	90.00	6,293.6	691.4	2,394.3	2,311.9	82.46	29.037	
11,300.0	7,500.0	7,453.0	7,453.0	72.7	13.0	90.00	6,293.6	691.4	2,351.4	2,268.0	83.35	28.209	
11,400.0	7,500.0	7,453.0	7,453.0	74.4	13.0	90.00	6,293.6	691.4	2,253.2	2,167.9	85.39	26.389	
11,500.0	7,500.0	7,453.0	7,453.0	76.1	13.0	90.00	6,293.6	691.4	2,154.9	2,067.5	87.40	24.656	
11,600.0	7,500.0	7,453.0	7,453.0	77.8	13.0	90.00	6,293.6	691.4	2,056.5	1,967.1	89.39	23.005	
11,700.0	7,500.0	7,453.0	7,453.0	79.5	13.0	90.00	6,293.6	691.4	1,957.9	1,866.5	91.36	21.430	
11,800.0	7,500.0	7,453.0	7,453.0	81.2	13.0	90.00	6,293.6	691.4	1,859.1	1,765.8	93.31	19.923	
11,900.0	7,500.0	7,453.0	7,453.0	82.9	13.0	90.00	6,293.6	691.4	1,760.2	1,664.9	95.24	18.482	
12,000.0	7,500.0	7,453.0	7,453.0	84.7	13.0	90.00	6,293.6	691.4	1,661.1	1,564.0	97.14	17.100	
12,100.0	7,500.0	7,453.0	7,453.0	86.4	13.0	90.00	6,293.6	691.4	1,562.0	1,462.9	99.02	15.774	
12,169.2	7,500.0	7,453.0	7,453.0	87.6	13.0	90.00	6,293.6	691.4	1,493.3	1,393.0	100.31	14.887	
12,200.0	7,500.0	7,453.0	7,453.0	88.1	13.0	90.00	6,293.6	691.4	1,462.7	1,361.8	100.84	14.504	
12,300.0	7,500.0	7,453.0	7,453.0	89.8	13.0	90.00	6,293.6	691.4	1,363.5	1,260.9	102.58	13.292	
12,400.0	7,500.0	7,453.0	7,453.0	91.6	13.0	90.00	6,293.6	691.4	1,264.3	1,160.0	104.32	12.120	
12,500.0	7,500.0	7,453.0	7,453.0	93.3	13.0	90.00	6,293.6	691.4	1,165.4	1,059.3	106.05	10.989	
12,600.0	7,500.0	7,453.0	7,453.0	95.0	13.0	90.00	6,293.6	691.4	1,066.6	958.8	107.79	9.895	
12,700.0	7,500.0	7,453.0	7,453.0	96.8	13.0	90.00	6,293.6	691.4	968.1	858.6	109.53	8.839	
12,800.0	7,500.0	7,453.0	7,453.0	98.5	13.0	90.00	6,293.6	691.4	870.0	758.7	111.27	7.819	
12,900.0	7,500.0	7,453.0	7,453.0	100.2	13.0	90.00	6,293.6	691.4	772.3	659.3	113.01	6.834	
13,000.0	7,500.0	7,453.0	7,453.0	102.0	13.0	90.00	6,293.6	691.4	675.3	560.5	114.75	5.885	
13,100.0	7,500.0	7,453.0	7,453.0	103.7	13.0	90.00	6,293.6	691.4	579.3	462.8	116.49	4.973	
13,200.0	7,500.0	7,453.0	7,453.0	105.4	13.0	90.00	6,293.6	691.4	484.9	366.7	118.23	4.101	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 2-6 (EXISTING) - NOBLE WELL - NO SURV													Offset Site Error:	0.0 ft
Survey Program: 8164-Geolink 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		
13,300.0	7,500.0	7,453.0	7,453.0	107.2	13.0	90.00	6,293.6	691.4	393.3	273.3	119.97	3.278		
13,400.0	7,500.0	7,453.0	7,453.0	108.9	13.0	90.00	6,293.6	691.4	307.0	185.3	121.71	2.522		
13,500.0	7,500.0	7,453.0	7,453.0	110.7	13.0	90.00	6,293.6	691.4	232.0	108.5	123.46	1.879		
13,600.0	7,500.0	7,453.0	7,453.0	112.4	13.0	90.00	6,293.6	691.4	182.7	57.5	125.20	1.459	Level 3	
13,652.2	7,500.0	7,453.0	7,453.0	113.3	13.0	90.00	6,293.6	691.4	175.1	49.0	126.11	1.388	Level 3, CC, ES, SF	
13,700.0	7,500.0	7,453.0	7,453.0	114.1	13.0	90.00	6,293.6	691.4	181.5	54.6	126.94	1.430	Level 3	
13,800.0	7,500.0	7,453.0	7,453.0	115.9	13.0	90.00	6,293.6	691.4	229.2	100.5	128.68	1.781		
13,900.0	7,500.0	7,453.0	7,453.0	117.6	13.0	90.00	6,293.6	691.4	303.5	173.0	130.43	2.327		
14,000.0	7,500.0	7,453.0	7,453.0	119.4	13.0	90.00	6,293.6	691.4	389.4	257.3	132.17	2.946		
14,100.0	7,500.0	7,453.0	7,453.0	121.1	13.0	90.00	6,293.6	691.4	480.9	346.9	133.92	3.591		
14,200.0	7,500.0	7,453.0	7,453.0	122.8	13.0	90.00	6,293.6	691.4	575.1	439.5	135.66	4.240		
14,300.0	7,500.0	7,453.0	7,453.0	124.6	13.0	90.00	6,293.6	691.4	671.1	533.7	137.41	4.884		
14,400.0	7,500.0	7,453.0	7,453.0	126.3	13.0	90.00	6,293.6	691.4	768.1	628.9	139.15	5.520		
14,455.0	7,500.0	7,453.0	7,453.0	127.3	13.0	90.00	6,293.6	691.4	821.7	681.6	140.11	5.865		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 4 (EXISTING) - MARTIN EXP WELL - NO S												Offset Site Error: 0.0 ft	
Survey Program: 8200-Geolink 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	
7,650.0	7,463.8	7,420.8	7,420.8	18.2	13.0	-23.49	5,530.8	62.1	5,251.9	5,231.6	20.36	257.928	
7,700.0	7,479.2	7,436.2	7,436.2	18.5	13.0	-28.40	5,530.8	62.1	5,204.9	5,184.3	20.58	252.867	
7,750.0	7,490.4	7,447.4	7,447.4	18.9	13.0	-36.97	5,530.8	62.1	5,156.7	5,134.8	21.90	235.462	
7,800.0	7,497.4	7,454.4	7,454.4	19.3	13.0	-53.60	5,530.8	62.1	5,107.6	5,082.3	25.24	202.330	
7,850.0	7,500.0	7,457.0	7,457.0	19.8	13.0	-85.81	5,530.8	62.1	5,058.1	5,028.6	29.48	171.597	
7,855.2	7,500.0	7,457.0	7,457.0	19.9	13.0	-90.00	5,530.8	62.1	5,052.9	5,023.3	29.62	170.564	
7,900.0	7,500.0	7,457.0	7,457.0	20.3	13.0	-90.00	5,530.8	62.1	5,008.4	4,978.3	30.14	166.152	
8,000.0	7,500.0	7,457.0	7,457.0	21.3	13.0	-90.00	5,530.8	62.1	4,909.2	4,877.8	31.37	156.491	
8,100.0	7,500.0	7,457.0	7,457.0	22.5	13.0	-90.00	5,530.8	62.1	4,810.0	4,777.3	32.68	147.197	
8,200.0	7,500.0	7,457.0	7,457.0	23.7	13.0	-90.00	5,530.8	62.1	4,710.8	4,676.8	34.05	138.353	
8,300.0	7,500.0	7,457.0	7,457.0	25.0	13.0	-90.00	5,530.8	62.1	4,611.7	4,576.2	35.47	130.000	
8,400.0	7,500.0	7,457.0	7,457.0	26.3	13.0	-90.00	5,530.8	62.1	4,512.6	4,475.7	36.94	122.148	
8,500.0	7,500.0	7,457.0	7,457.0	27.7	13.0	-90.00	5,530.8	62.1	4,413.6	4,375.1	38.45	114.790	
8,600.0	7,500.0	7,457.0	7,457.0	29.1	13.0	-90.00	5,530.8	62.1	4,314.6	4,274.6	39.98	107.907	
8,700.0	7,500.0	7,457.0	7,457.0	30.5	13.0	-90.00	5,530.8	62.1	4,215.6	4,174.1	41.54	101.471	
8,800.0	7,500.0	7,457.0	7,457.0	32.0	13.0	-90.00	5,530.8	62.1	4,116.7	4,073.6	43.13	95.456	
8,900.0	7,500.0	7,457.0	7,457.0	33.5	13.0	-90.00	5,530.8	62.1	4,017.8	3,973.1	44.73	89.831	
9,000.0	7,500.0	7,457.0	7,457.0	35.1	13.0	-90.00	5,530.8	62.1	3,919.0	3,872.7	46.34	84.568	
9,100.0	7,500.0	7,457.0	7,457.0	36.6	13.0	-90.00	5,530.8	62.1	3,820.3	3,772.3	47.97	79.638	
9,200.0	7,500.0	7,457.0	7,457.0	38.2	13.0	-90.00	5,530.8	62.1	3,721.6	3,672.0	49.61	75.016	
9,300.0	7,500.0	7,457.0	7,457.0	39.8	13.0	-90.00	5,530.8	62.1	3,623.0	3,571.8	51.26	70.677	
9,400.0	7,500.0	7,457.0	7,457.0	41.4	13.0	-90.00	5,530.8	62.1	3,524.5	3,471.6	52.92	66.599	
9,500.0	7,500.0	7,457.0	7,457.0	43.0	13.0	-90.00	5,530.8	62.1	3,426.1	3,371.5	54.59	62.762	
9,600.0	7,500.0	7,457.0	7,457.0	44.6	13.0	-90.00	5,530.8	62.1	3,327.8	3,271.5	56.26	59.147	
9,700.0	7,500.0	7,457.0	7,457.0	46.2	13.0	-90.00	5,530.8	62.1	3,229.5	3,171.6	57.94	55.737	
9,800.0	7,500.0	7,457.0	7,457.0	47.9	13.0	-90.00	5,530.8	62.1	3,131.4	3,071.8	59.63	52.515	
9,900.0	7,500.0	7,457.0	7,457.0	49.5	13.0	-90.00	5,530.8	62.1	3,033.4	2,972.1	61.32	49.470	
10,000.0	7,500.0	7,457.0	7,457.0	51.2	13.0	-90.00	5,530.8	62.1	2,935.5	2,872.5	63.01	46.586	
10,046.2	7,500.0	7,457.0	7,457.0	51.9	13.0	-90.00	5,530.8	62.1	2,890.4	2,826.6	63.80	45.306	
10,100.0	7,500.0	7,457.0	7,457.0	52.8	13.0	-90.00	5,530.8	62.1	2,837.8	2,773.2	64.61	43.919	
10,200.0	7,500.0	7,457.0	7,457.0	54.5	13.0	-90.00	5,530.8	62.1	2,739.8	2,673.7	66.12	41.436	
10,300.0	7,500.0	7,457.0	7,457.0	56.1	13.0	-90.00	5,530.8	62.1	2,641.7	2,574.1	67.62	39.067	
10,400.0	7,500.0	7,457.0	7,457.0	57.8	13.0	-90.00	5,530.8	62.1	2,543.4	2,474.2	69.10	36.804	
10,500.0	7,500.0	7,457.0	7,457.0	59.5	13.0	-90.00	5,530.8	62.1	2,444.8	2,374.3	70.58	34.640	
10,600.0	7,500.0	7,457.0	7,457.0	61.1	13.0	-90.00	5,530.8	62.1	2,346.1	2,274.1	72.04	32.569	
10,700.0	7,500.0	7,457.0	7,457.0	62.8	13.0	-90.00	5,530.8	62.1	2,247.3	2,173.8	73.48	30.583	
10,800.0	7,500.0	7,457.0	7,457.0	64.4	13.0	-90.00	5,530.8	62.1	2,148.2	2,073.3	74.91	28.676	
10,906.2	7,500.0	7,457.0	7,457.0	66.2	13.0	-90.00	5,530.8	62.1	2,042.9	1,966.5	76.42	26.734	
11,000.0	7,500.0	7,457.0	7,457.0	67.7	13.0	-90.00	5,530.8	62.1	1,949.8	1,871.8	78.04	24.987	
11,100.0	7,500.0	7,457.0	7,457.0	69.4	13.0	-90.00	5,530.8	62.1	1,850.7	1,770.9	79.76	23.203	
11,200.0	7,500.0	7,457.0	7,457.0	71.0	13.0	-90.00	5,530.8	62.1	1,751.7	1,670.2	81.49	21.495	
11,256.2	7,500.0	7,457.0	7,457.0	72.0	13.0	-90.00	5,530.8	62.1	1,696.1	1,613.6	82.47	20.567	
11,300.0	7,500.0	7,457.0	7,457.0	72.7	13.0	-90.00	5,530.8	62.1	1,652.8	1,569.4	83.36	19.826	
11,400.0	7,500.0	7,457.0	7,457.0	74.4	13.0	-90.00	5,530.8	62.1	1,554.2	1,468.8	85.39	18.201	
11,500.0	7,500.0	7,457.0	7,457.0	76.1	13.0	-90.00	5,530.8	62.1	1,456.3	1,368.9	87.41	16.661	
11,600.0	7,500.0	7,457.0	7,457.0	77.8	13.0	-90.00	5,530.8	62.1	1,359.0	1,269.6	89.40	15.202	
11,700.0	7,500.0	7,457.0	7,457.0	79.5	13.0	-90.00	5,530.8	62.1	1,262.7	1,171.3	91.37	13.819	
11,800.0	7,500.0	7,457.0	7,457.0	81.2	13.0	-90.00	5,530.8	62.1	1,167.4	1,074.1	93.32	12.510	
11,900.0	7,500.0	7,457.0	7,457.0	82.9	13.0	-90.00	5,530.8	62.1	1,073.7	978.5	95.25	11.273	
12,000.0	7,500.0	7,457.0	7,457.0	84.7	13.0	-90.00	5,530.8	62.1	981.9	884.8	97.15	10.108	
12,100.0	7,500.0	7,457.0	7,457.0	86.4	13.0	-90.00	5,530.8	62.1	892.7	793.7	99.03	9.015	
12,169.2	7,500.0	7,457.0	7,457.0	87.6	13.0	-90.00	5,530.8	62.1	833.0	732.7	100.32	8.304	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 4 (EXISTING) - MARTIN EXP WELL - NO S													Offset Site Error:	0.0 ft
Survey Program: 8200-Geolink 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		
12,200.0	7,500.0	7,457.0	7,457.0	88.1	13.0	-90.00	5,530.8	62.1	807.0	706.1	100.85	8.002		
12,300.0	7,500.0	7,457.0	7,457.0	89.8	13.0	-90.00	5,530.8	62.1	725.1	622.5	102.59	7.068		
12,400.0	7,500.0	7,457.0	7,457.0	91.6	13.0	-90.00	5,530.8	62.1	648.4	544.0	104.32	6.215		
12,500.0	7,500.0	7,457.0	7,457.0	93.3	13.0	-90.00	5,530.8	62.1	578.7	472.7	106.06	5.457		
12,600.0	7,500.0	7,457.0	7,457.0	95.0	13.0	-90.00	5,530.8	62.1	519.2	411.4	107.80	4.816		
12,700.0	7,500.0	7,457.0	7,457.0	96.8	13.0	-90.00	5,530.8	62.1	473.4	363.9	109.54	4.322		
12,800.0	7,500.0	7,457.0	7,457.0	98.5	13.0	-90.00	5,530.8	62.1	445.7	334.5	111.28	4.006		
12,877.1	7,500.0	7,457.0	7,457.0	99.8	13.0	-90.00	5,530.8	62.1	439.0	326.4	112.62	3.898 CC, ES		
12,900.0	7,500.0	7,457.0	7,457.0	100.2	13.0	-90.00	5,530.8	62.1	439.6	326.6	113.02	3.890 SF		
13,000.0	7,500.0	7,457.0	7,457.0	102.0	13.0	-90.00	5,530.8	62.1	455.9	341.1	114.76	3.973		
13,100.0	7,500.0	7,457.0	7,457.0	103.7	13.0	-90.00	5,530.8	62.1	492.4	375.9	116.50	4.227		
13,200.0	7,500.0	7,457.0	7,457.0	105.4	13.0	-90.00	5,530.8	62.1	545.0	426.7	118.24	4.609		
13,300.0	7,500.0	7,457.0	7,457.0	107.2	13.0	-90.00	5,530.8	62.1	609.6	489.6	119.98	5.081		
13,400.0	7,500.0	7,457.0	7,457.0	108.9	13.0	-90.00	5,530.8	62.1	682.8	561.0	121.72	5.609		
13,500.0	7,500.0	7,457.0	7,457.0	110.7	13.0	-90.00	5,530.8	62.1	762.1	638.6	123.46	6.172		
13,600.0	7,500.0	7,457.0	7,457.0	112.4	13.0	-90.00	5,530.8	62.1	845.8	720.6	125.21	6.755		
13,700.0	7,500.0	7,457.0	7,457.0	114.1	13.0	-90.00	5,530.8	62.1	932.7	805.7	126.95	7.347		
13,800.0	7,500.0	7,457.0	7,457.0	115.9	13.0	-90.00	5,530.8	62.1	1,022.0	893.3	128.69	7.942		
13,900.0	7,500.0	7,457.0	7,457.0	117.6	13.0	-90.00	5,530.8	62.1	1,113.1	982.7	130.44	8.534		
14,000.0	7,500.0	7,457.0	7,457.0	119.4	13.0	-90.00	5,530.8	62.1	1,205.7	1,073.5	132.18	9.122		
14,100.0	7,500.0	7,457.0	7,457.0	121.1	13.0	-90.00	5,530.8	62.1	1,299.3	1,165.4	133.92	9.702		
14,200.0	7,500.0	7,457.0	7,457.0	122.8	13.0	-90.00	5,530.8	62.1	1,393.8	1,258.2	135.67	10.274		
14,300.0	7,500.0	7,457.0	7,457.0	124.6	13.0	-90.00	5,530.8	62.1	1,489.1	1,351.7	137.41	10.837		
14,400.0	7,500.0	7,457.0	7,457.0	126.3	13.0	-90.00	5,530.8	62.1	1,584.9	1,445.8	139.16	11.389		
14,455.0	7,500.0	7,457.0	7,457.0	127.3	13.0	-90.00	5,530.8	62.1	1,637.9	1,497.7	140.12	11.689		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 5-6 (EXISTING) - FOUNDATION WELL - NO													Offset Site Error:	0.0 ft
Survey Program: 7771-Geolink 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		
9,000.0	7,500.0	7,448.0	7,448.0	35.1	13.0	-90.00	6,883.4	61.6	5,260.9	5,214.5	46.33	113.561		
9,100.0	7,500.0	7,448.0	7,448.0	36.6	13.0	-90.00	6,883.4	61.6	5,161.6	5,113.6	47.96	107.633		
9,200.0	7,500.0	7,448.0	7,448.0	38.2	13.0	-90.00	6,883.4	61.6	5,062.3	5,012.7	49.60	102.072		
9,300.0	7,500.0	7,448.0	7,448.0	39.8	13.0	-90.00	6,883.4	61.6	4,963.1	4,911.9	51.25	96.849		
9,400.0	7,500.0	7,448.0	7,448.0	41.4	13.0	-90.00	6,883.4	61.6	4,864.0	4,811.0	52.91	91.936		
9,500.0	7,500.0	7,448.0	7,448.0	43.0	13.0	-90.00	6,883.4	61.6	4,764.8	4,710.2	54.57	87.311		
9,600.0	7,500.0	7,448.0	7,448.0	44.6	13.0	-90.00	6,883.4	61.6	4,665.7	4,609.5	56.25	82.951		
9,700.0	7,500.0	7,448.0	7,448.0	46.2	13.0	-90.00	6,883.4	61.6	4,566.6	4,508.7	57.93	78.834		
9,800.0	7,500.0	7,448.0	7,448.0	47.9	13.0	-90.00	6,883.4	61.6	4,467.6	4,408.0	59.61	74.944		
9,900.0	7,500.0	7,448.0	7,448.0	49.5	13.0	-90.00	6,883.4	61.6	4,368.6	4,307.3	61.30	71.263		
10,000.0	7,500.0	7,448.0	7,448.0	51.2	13.0	-90.00	6,883.4	61.6	4,269.7	4,206.7	63.00	67.775		
10,046.2	7,500.0	7,448.0	7,448.0	51.9	13.0	-90.00	6,883.4	61.6	4,224.0	4,160.2	63.78	66.226		
10,100.0	7,500.0	7,448.0	7,448.0	52.8	13.0	-90.00	6,883.4	61.6	4,170.8	4,106.2	64.60	64.564		
10,200.0	7,500.0	7,448.0	7,448.0	54.5	13.0	-90.00	6,883.4	61.6	4,071.7	4,005.6	66.11	61.592		
10,300.0	7,500.0	7,448.0	7,448.0	56.1	13.0	-90.00	6,883.4	61.6	3,972.4	3,904.8	67.60	58.760		
10,400.0	7,500.0	7,448.0	7,448.0	57.8	13.0	-90.00	6,883.4	61.6	3,872.9	3,803.9	69.09	56.057		
10,500.0	7,500.0	7,448.0	7,448.0	59.5	13.0	-90.00	6,883.4	61.6	3,773.4	3,702.8	70.56	53.476		
10,600.0	7,500.0	7,448.0	7,448.0	61.1	13.0	-90.00	6,883.4	61.6	3,673.6	3,601.6	72.02	51.008		
10,700.0	7,500.0	7,448.0	7,448.0	62.8	13.0	-90.00	6,883.4	61.6	3,573.8	3,500.4	73.47	48.646		
10,800.0	7,500.0	7,448.0	7,448.0	64.4	13.0	-90.00	6,883.4	61.6	3,473.9	3,399.0	74.90	46.382		
10,906.2	7,500.0	7,448.0	7,448.0	66.2	13.0	-90.00	6,883.4	61.6	3,367.8	3,291.4	76.40	44.080		
11,000.0	7,500.0	7,448.0	7,448.0	67.7	13.0	-90.00	6,883.4	61.6	3,274.0	3,196.0	78.02	41.963		
11,100.0	7,500.0	7,448.0	7,448.0	69.4	13.0	-90.00	6,883.4	61.6	3,174.0	3,094.2	79.75	39.801		
11,200.0	7,500.0	7,448.0	7,448.0	71.0	13.0	-90.00	6,883.4	61.6	3,074.0	2,992.5	81.48	37.729		
11,256.2	7,500.0	7,448.0	7,448.0	72.0	13.0	-90.00	6,883.4	61.6	3,017.8	2,935.4	82.45	36.602		
11,300.0	7,500.0	7,448.0	7,448.0	72.7	13.0	-90.00	6,883.4	61.6	2,974.0	2,890.7	83.35	35.683		
11,400.0	7,500.0	7,448.0	7,448.0	74.4	13.0	-90.00	6,883.4	61.6	2,874.1	2,788.7	85.38	33.664		
11,500.0	7,500.0	7,448.0	7,448.0	76.1	13.0	-90.00	6,883.4	61.6	2,774.3	2,686.9	87.39	31.746		
11,600.0	7,500.0	7,448.0	7,448.0	77.8	13.0	-90.00	6,883.4	61.6	2,674.6	2,585.2	89.38	29.923		
11,700.0	7,500.0	7,448.0	7,448.0	79.5	13.0	-90.00	6,883.4	61.6	2,575.0	2,483.7	91.35	28.188		
11,800.0	7,500.0	7,448.0	7,448.0	81.2	13.0	-90.00	6,883.4	61.6	2,475.7	2,382.4	93.30	26.535		
11,900.0	7,500.0	7,448.0	7,448.0	82.9	13.0	-90.00	6,883.4	61.6	2,376.7	2,281.5	95.23	24.958		
12,000.0	7,500.0	7,448.0	7,448.0	84.7	13.0	-90.00	6,883.4	61.6	2,278.1	2,181.0	97.13	23.454		
12,100.0	7,500.0	7,448.0	7,448.0	86.4	13.0	-90.00	6,883.4	61.6	2,179.9	2,080.9	99.01	22.017		
12,169.2	7,500.0	7,448.0	7,448.0	87.6	13.0	-90.00	6,883.4	61.6	2,112.3	2,012.0	100.30	21.060		
12,200.0	7,500.0	7,448.0	7,448.0	88.1	13.0	-90.00	6,883.4	61.6	2,082.3	1,981.4	100.83	20.650		
12,300.0	7,500.0	7,448.0	7,448.0	89.8	13.0	-90.00	6,883.4	61.6	1,984.9	1,882.4	102.57	19.352		
12,400.0	7,500.0	7,448.0	7,448.0	91.6	13.0	-90.00	6,883.4	61.6	1,887.9	1,783.6	104.31	18.099		
12,500.0	7,500.0	7,448.0	7,448.0	93.3	13.0	-90.00	6,883.4	61.6	1,791.1	1,685.1	106.04	16.890		
12,600.0	7,500.0	7,448.0	7,448.0	95.0	13.0	-90.00	6,883.4	61.6	1,694.8	1,587.0	107.78	15.724		
12,700.0	7,500.0	7,448.0	7,448.0	96.8	13.0	-90.00	6,883.4	61.6	1,598.9	1,489.4	109.52	14.599		
12,800.0	7,500.0	7,448.0	7,448.0	98.5	13.0	-90.00	6,883.4	61.6	1,503.5	1,392.3	111.26	13.514		
12,900.0	7,500.0	7,448.0	7,448.0	100.2	13.0	-90.00	6,883.4	61.6	1,408.8	1,295.8	113.00	12.467		
13,000.0	7,500.0	7,448.0	7,448.0	102.0	13.0	-90.00	6,883.4	61.6	1,314.8	1,200.1	114.74	11.459		
13,100.0	7,500.0	7,448.0	7,448.0	103.7	13.0	-90.00	6,883.4	61.6	1,221.8	1,105.4	116.48	10.490		
13,200.0	7,500.0	7,448.0	7,448.0	105.4	13.0	-90.00	6,883.4	61.6	1,130.1	1,011.8	118.22	9.559		
13,300.0	7,500.0	7,448.0	7,448.0	107.2	13.0	-90.00	6,883.4	61.6	1,039.8	919.8	119.96	8.668		
13,400.0	7,500.0	7,448.0	7,448.0	108.9	13.0	-90.00	6,883.4	61.6	951.5	829.8	121.70	7.818		
13,500.0	7,500.0	7,448.0	7,448.0	110.7	13.0	-90.00	6,883.4	61.6	865.7	742.2	123.45	7.013		
13,600.0	7,500.0	7,448.0	7,448.0	112.4	13.0	-90.00	6,883.4	61.6	783.3	658.1	125.19	6.257		
13,700.0	7,500.0	7,448.0	7,448.0	114.1	13.0	-90.00	6,883.4	61.6	705.4	578.5	126.93	5.558		
13,800.0	7,500.0	7,448.0	7,448.0	115.9	13.0	-90.00	6,883.4	61.6	633.9	505.2	128.68	4.926		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 5-6 (EXISTING) - FOUNDATION WELL - NO										Offset Site Error:		0.0 ft	
Survey Program:		7771-Geolink 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			
13,900.0	7,500.0	7,448.0	7,448.0	117.6	13.0	-90.00	6,883.4	61.6	570.9	440.5	130.42	4.377			
14,000.0	7,500.0	7,448.0	7,448.0	119.4	13.0	-90.00	6,883.4	61.6	519.6	387.5	132.16	3.932			
14,100.0	7,500.0	7,448.0	7,448.0	121.1	13.0	-90.00	6,883.4	61.6	483.9	350.0	133.91	3.614			
14,200.0	7,500.0	7,448.0	7,448.0	122.8	13.0	-90.00	6,883.4	61.6	467.2	331.5	135.65	3.444			
14,229.4	7,500.0	7,448.0	7,448.0	123.4	13.0	-90.00	6,883.4	61.6	466.3	330.1	136.17	3.424	CC, ES, SF		
14,300.0	7,500.0	7,448.0	7,448.0	124.6	13.0	-90.00	6,883.4	61.6	471.6	334.2	137.40	3.432			
14,400.0	7,500.0	7,448.0	7,448.0	126.3	13.0	-90.00	6,883.4	61.6	496.5	357.4	139.14	3.568			
14,455.0	7,500.0	7,448.0	7,448.0	127.3	13.0	-90.00	6,883.4	61.6	518.0	377.9	140.10	3.697			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 7-6 (EXISTING) - NOBLE WELL - NO SURV											Offset Site Error: 0.0 ft		
Survey Program: 7756-Geolink 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	
7,700.0	7,479.2	7,433.2	7,433.2	18.5	13.0	22.42	5,577.1	1,383.4	5,276.9	5,258.1	18.77	281.198	
7,750.0	7,490.4	7,444.4	7,444.4	18.9	13.0	33.32	5,577.1	1,383.4	5,228.5	5,207.8	20.65	253.217	
7,800.0	7,497.4	7,451.4	7,451.4	19.3	13.0	53.40	5,577.1	1,383.4	5,179.4	5,154.1	25.25	205.146	
7,850.0	7,500.0	7,454.0	7,454.0	19.8	13.0	86.27	5,577.1	1,383.4	5,129.9	5,100.3	29.56	173.565	
7,855.2	7,500.0	7,454.0	7,454.0	19.9	13.0	90.00	5,577.1	1,383.4	5,124.7	5,095.1	29.62	173.019	
7,900.0	7,500.0	7,454.0	7,454.0	20.3	13.0	90.00	5,577.1	1,383.4	5,080.4	5,050.2	30.14	168.567	
8,000.0	7,500.0	7,454.0	7,454.0	21.3	13.0	90.00	5,577.1	1,383.4	4,981.4	4,950.0	31.37	158.817	
8,100.0	7,500.0	7,454.0	7,454.0	22.5	13.0	90.00	5,577.1	1,383.4	4,882.4	4,849.7	32.67	149.436	
8,200.0	7,500.0	7,454.0	7,454.0	23.7	13.0	90.00	5,577.1	1,383.4	4,783.5	4,749.4	34.04	140.507	
8,300.0	7,500.0	7,454.0	7,454.0	25.0	13.0	90.00	5,577.1	1,383.4	4,684.6	4,649.1	35.47	132.074	
8,400.0	7,500.0	7,454.0	7,454.0	26.3	13.0	90.00	5,577.1	1,383.4	4,585.8	4,548.8	36.94	124.146	
8,500.0	7,500.0	7,454.0	7,454.0	27.7	13.0	90.00	5,577.1	1,383.4	4,487.0	4,448.5	38.44	116.716	
8,600.0	7,500.0	7,454.0	7,454.0	29.1	13.0	90.00	5,577.1	1,383.4	4,388.3	4,348.3	39.98	109.764	
8,700.0	7,500.0	7,454.0	7,454.0	30.5	13.0	90.00	5,577.1	1,383.4	4,289.6	4,248.1	41.54	103.265	
8,800.0	7,500.0	7,454.0	7,454.0	32.0	13.0	90.00	5,577.1	1,383.4	4,191.0	4,147.9	43.12	97.191	
8,900.0	7,500.0	7,454.0	7,454.0	33.5	13.0	90.00	5,577.1	1,383.4	4,092.5	4,047.7	44.72	91.510	
9,000.0	7,500.0	7,454.0	7,454.0	35.1	13.0	90.00	5,577.1	1,383.4	3,994.0	3,947.7	46.34	86.195	
9,100.0	7,500.0	7,454.0	7,454.0	36.6	13.0	90.00	5,577.1	1,383.4	3,895.6	3,847.7	47.97	81.217	
9,200.0	7,500.0	7,454.0	7,454.0	38.2	13.0	90.00	5,577.1	1,383.4	3,797.3	3,747.7	49.61	76.550	
9,300.0	7,500.0	7,454.0	7,454.0	39.8	13.0	90.00	5,577.1	1,383.4	3,699.1	3,647.9	51.26	72.169	
9,400.0	7,500.0	7,454.0	7,454.0	41.4	13.0	90.00	5,577.1	1,383.4	3,601.0	3,548.1	52.92	68.052	
9,500.0	7,500.0	7,454.0	7,454.0	43.0	13.0	90.00	5,577.1	1,383.4	3,503.0	3,448.5	54.58	64.178	
9,600.0	7,500.0	7,454.0	7,454.0	44.6	13.0	90.00	5,577.1	1,383.4	3,405.2	3,348.9	56.26	60.528	
9,700.0	7,500.0	7,454.0	7,454.0	46.2	13.0	90.00	5,577.1	1,383.4	3,307.4	3,249.5	57.94	57.086	
9,800.0	7,500.0	7,454.0	7,454.0	47.9	13.0	90.00	5,577.1	1,383.4	3,209.8	3,150.2	59.62	53.835	
9,900.0	7,500.0	7,454.0	7,454.0	49.5	13.0	90.00	5,577.1	1,383.4	3,112.3	3,051.0	61.31	50.761	
10,000.0	7,500.0	7,454.0	7,454.0	51.2	13.0	90.00	5,577.1	1,383.4	3,015.0	2,952.0	63.01	47.851	
10,046.2	7,500.0	7,454.0	7,454.0	51.9	13.0	90.00	5,577.1	1,383.4	2,970.1	2,906.4	63.79	46.559	
10,100.0	7,500.0	7,454.0	7,454.0	52.8	13.0	90.00	5,577.1	1,383.4	2,918.0	2,853.4	64.61	45.164	
10,200.0	7,500.0	7,454.0	7,454.0	54.5	13.0	90.00	5,577.1	1,383.4	2,821.5	2,755.4	66.12	42.675	
10,300.0	7,500.0	7,454.0	7,454.0	56.1	13.0	90.00	5,577.1	1,383.4	2,725.9	2,658.2	67.61	40.315	
10,400.0	7,500.0	7,454.0	7,454.0	57.8	13.0	90.00	5,577.1	1,383.4	2,631.0	2,561.9	69.10	38.076	
10,500.0	7,500.0	7,454.0	7,454.0	59.5	13.0	90.00	5,577.1	1,383.4	2,537.2	2,466.7	70.57	35.952	
10,600.0	7,500.0	7,454.0	7,454.0	61.1	13.0	90.00	5,577.1	1,383.4	2,444.6	2,372.5	72.03	33.938	
10,700.0	7,500.0	7,454.0	7,454.0	62.8	13.0	90.00	5,577.1	1,383.4	2,353.2	2,279.7	73.48	32.027	
10,800.0	7,500.0	7,454.0	7,454.0	64.4	13.0	90.00	5,577.1	1,383.4	2,263.3	2,188.4	74.91	30.215	
10,906.2	7,500.0	7,454.0	7,454.0	66.2	13.0	90.00	5,577.1	1,383.4	2,169.8	2,093.4	76.41	28.396	
11,000.0	7,500.0	7,454.0	7,454.0	67.7	13.0	90.00	5,577.1	1,383.4	2,088.6	2,010.6	78.03	26.767	
11,100.0	7,500.0	7,454.0	7,454.0	69.4	13.0	90.00	5,577.1	1,383.4	2,003.3	1,923.5	79.76	25.117	
11,200.0	7,500.0	7,454.0	7,454.0	71.0	13.0	90.00	5,577.1	1,383.4	1,919.4	1,837.9	81.49	23.554	
11,256.2	7,500.0	7,454.0	7,454.0	72.0	13.0	90.00	5,577.1	1,383.4	1,872.9	1,790.4	82.46	22.713	
11,300.0	7,500.0	7,454.0	7,454.0	72.7	13.0	90.00	5,577.1	1,383.4	1,837.0	1,753.6	83.36	22.037	
11,400.0	7,500.0	7,454.0	7,454.0	74.4	13.0	90.00	5,577.1	1,383.4	1,755.5	1,670.1	85.39	20.559	
11,500.0	7,500.0	7,454.0	7,454.0	76.1	13.0	90.00	5,577.1	1,383.4	1,675.0	1,587.6	87.40	19.164	
11,600.0	7,500.0	7,454.0	7,454.0	77.8	13.0	90.00	5,577.1	1,383.4	1,595.6	1,506.2	89.39	17.849	
11,700.0	7,500.0	7,454.0	7,454.0	79.5	13.0	90.00	5,577.1	1,383.4	1,517.5	1,426.1	91.36	16.609	
11,800.0	7,500.0	7,454.0	7,454.0	81.2	13.0	90.00	5,577.1	1,383.4	1,440.9	1,347.6	93.31	15.441	
11,900.0	7,500.0	7,454.0	7,454.0	82.9	13.0	90.00	5,577.1	1,383.4	1,366.2	1,270.9	95.24	14.344	
12,000.0	7,500.0	7,454.0	7,454.0	84.7	13.0	90.00	5,577.1	1,383.4	1,293.6	1,196.4	97.14	13.316	
12,100.0	7,500.0	7,454.0	7,454.0	86.4	13.0	90.00	5,577.1	1,383.4	1,223.6	1,124.6	99.02	12.357	
12,169.2	7,500.0	7,454.0	7,454.0	87.6	13.0	90.00	5,577.1	1,383.4	1,176.9	1,076.6	100.31	11.733	
12,200.0	7,500.0	7,454.0	7,454.0	88.1	13.0	90.00	5,577.1	1,383.4	1,156.7	1,055.9	100.85	11.470	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BECKY 7-6 (EXISTING) - NOBLE WELL - NO SURV												Offset Site Error:	0.0 ft
Survey Program: 7756-Geolink 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)			
12,300.0	7,500.0	7,454.0	7,454.0	89.8	13.0	90.00	5,577.1	1,383.4	1,094.6	992.0	102.58	10.670	
12,400.0	7,500.0	7,454.0	7,454.0	91.6	13.0	90.00	5,577.1	1,383.4	1,038.4	934.1	104.32	9.954	
12,500.0	7,500.0	7,454.0	7,454.0	93.3	13.0	90.00	5,577.1	1,383.4	989.1	883.1	106.05	9.326	
12,600.0	7,500.0	7,454.0	7,454.0	95.0	13.0	90.00	5,577.1	1,383.4	947.9	840.1	107.79	8.793	
12,700.0	7,500.0	7,454.0	7,454.0	96.8	13.0	90.00	5,577.1	1,383.4	915.7	806.2	109.53	8.360	
12,800.0	7,500.0	7,454.0	7,454.0	98.5	13.0	90.00	5,577.1	1,383.4	893.7	782.4	111.27	8.032	
12,900.0	7,500.0	7,454.0	7,454.0	100.2	13.0	90.00	5,577.1	1,383.4	882.5	769.5	113.01	7.809	
12,949.4	7,500.0	7,454.0	7,454.0	101.1	13.0	90.00	5,577.1	1,383.4	881.1	767.2	113.87	7.738 CC, ES	
13,000.0	7,500.0	7,454.0	7,454.0	102.0	13.0	90.00	5,577.1	1,383.4	882.5	767.8	114.75	7.691	
13,100.0	7,500.0	7,454.0	7,454.0	103.7	13.0	90.00	5,577.1	1,383.4	893.9	777.4	116.49	7.673 SF	
13,200.0	7,500.0	7,454.0	7,454.0	105.4	13.0	90.00	5,577.1	1,383.4	916.0	797.8	118.23	7.748	
13,300.0	7,500.0	7,454.0	7,454.0	107.2	13.0	90.00	5,577.1	1,383.4	948.3	828.3	119.97	7.904	
13,400.0	7,500.0	7,454.0	7,454.0	108.9	13.0	90.00	5,577.1	1,383.4	989.6	867.9	121.71	8.131	
13,500.0	7,500.0	7,454.0	7,454.0	110.7	13.0	90.00	5,577.1	1,383.4	1,039.0	915.5	123.46	8.416	
13,600.0	7,500.0	7,454.0	7,454.0	112.4	13.0	90.00	5,577.1	1,383.4	1,095.2	970.0	125.20	8.748	
13,700.0	7,500.0	7,454.0	7,454.0	114.1	13.0	90.00	5,577.1	1,383.4	1,157.4	1,030.5	126.94	9.118	
13,800.0	7,500.0	7,454.0	7,454.0	115.9	13.0	90.00	5,577.1	1,383.4	1,224.7	1,096.0	128.69	9.517	
13,900.0	7,500.0	7,454.0	7,454.0	117.6	13.0	90.00	5,577.1	1,383.4	1,296.1	1,165.7	130.43	9.937	
14,000.0	7,500.0	7,454.0	7,454.0	119.4	13.0	90.00	5,577.1	1,383.4	1,371.1	1,239.0	132.17	10.374	
14,100.0	7,500.0	7,454.0	7,454.0	121.1	13.0	90.00	5,577.1	1,383.4	1,449.2	1,315.3	133.92	10.821	
14,200.0	7,500.0	7,454.0	7,454.0	122.8	13.0	90.00	5,577.1	1,383.4	1,529.8	1,394.1	135.66	11.276	
14,300.0	7,500.0	7,454.0	7,454.0	124.6	13.0	90.00	5,577.1	1,383.4	1,612.6	1,475.1	137.41	11.736	
14,400.0	7,500.0	7,454.0	7,454.0	126.3	13.0	90.00	5,577.1	1,383.4	1,697.2	1,558.0	139.15	12.197	
14,455.0	7,500.0	7,454.0	7,454.0	127.3	13.0	90.00	5,577.1	1,383.4	1,744.4	1,604.3	140.11	12.450	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BULTHAUP 21-6 (EXISTING) - KERR-MCGEE WEL												Offset Site Error:	0.0 ft
Survey Program: 40-Geolink 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
8,600.0	7,500.0	7,495.4	7,399.1	29.1	19.6	87.18	6,294.5	2,022.1	5,229.5	5,184.6	44.89	116.506	
8,700.0	7,500.0	7,496.3	7,400.0	30.5	19.6	87.22	6,294.5	2,022.1	5,132.9	5,086.4	46.45	110.512	
8,800.0	7,500.0	7,497.3	7,400.9	32.0	19.6	87.26	6,294.5	2,022.1	5,036.4	4,988.4	48.03	104.864	
8,900.0	7,500.0	7,498.2	7,401.9	33.5	19.6	87.30	6,294.5	2,022.1	4,940.1	4,890.5	49.63	99.542	
9,000.0	7,500.0	7,499.1	7,402.8	35.1	19.6	87.34	6,294.5	2,022.1	4,843.9	4,792.7	51.24	94.526	
9,100.0	7,500.0	7,500.1	7,403.8	36.6	19.6	87.38	6,294.5	2,022.1	4,747.9	4,695.0	52.87	89.797	
9,200.0	7,500.0	7,501.1	7,404.8	38.2	19.6	87.42	6,294.6	2,022.0	4,652.1	4,597.5	54.52	85.335	
9,300.0	7,500.0	7,502.1	7,405.8	39.8	19.6	87.47	6,294.6	2,022.0	4,556.4	4,500.2	56.17	81.122	
9,400.0	7,500.0	7,503.1	7,406.8	41.4	19.6	87.51	6,294.6	2,022.0	4,460.9	4,403.1	57.83	77.142	
9,500.0	7,500.0	7,504.1	7,407.8	43.0	19.6	87.55	6,294.6	2,022.0	4,365.6	4,306.1	59.50	73.377	
9,600.0	7,500.0	7,505.2	7,408.9	44.6	19.6	87.60	6,294.6	2,022.0	4,270.6	4,209.4	61.17	69.813	
9,700.0	7,500.0	7,506.3	7,410.0	46.2	19.6	87.64	6,294.7	2,022.0	4,175.7	4,112.9	62.85	66.436	
9,800.0	7,500.0	7,507.4	7,411.1	47.9	19.6	87.69	6,294.7	2,022.0	4,081.1	4,016.6	64.54	63.233	
9,900.0	7,500.0	7,508.5	7,412.2	49.5	19.6	87.74	6,294.7	2,021.9	3,986.8	3,920.6	66.23	60.193	
10,000.0	7,500.0	7,509.6	7,413.3	51.2	19.6	87.79	6,294.7	2,021.9	3,892.8	3,824.8	67.93	57.305	
10,046.2	7,500.0	7,510.2	7,413.9	51.9	19.6	87.81	6,294.7	2,021.9	3,849.4	3,780.7	68.72	56.019	
10,100.0	7,500.0	7,510.8	7,414.5	52.8	19.6	87.89	6,294.7	2,021.9	3,799.1	3,729.5	69.59	54.595	
10,200.0	7,500.0	7,512.0	7,415.7	54.5	19.6	88.03	6,294.8	2,021.9	3,706.4	3,635.2	71.19	52.060	
10,300.0	7,500.0	7,520.0	7,423.7	56.1	19.6	88.41	6,294.9	2,021.8	3,614.7	3,541.9	72.81	49.648	
10,400.0	7,500.0	7,520.0	7,423.7	57.8	19.6	88.47	6,294.9	2,021.8	3,524.2	3,449.9	74.38	47.381	
10,500.0	7,500.0	7,520.0	7,423.7	59.5	19.6	88.52	6,294.9	2,021.8	3,435.1	3,359.2	75.94	45.234	
10,600.0	7,500.0	7,520.0	7,423.7	61.1	19.6	88.57	6,294.9	2,021.8	3,347.4	3,269.9	77.48	43.201	
10,700.0	7,500.0	7,520.0	7,423.7	62.8	19.6	88.61	6,294.9	2,021.8	3,261.3	3,182.3	79.01	41.276	
10,800.0	7,500.0	7,520.0	7,423.7	64.4	19.6	88.65	6,294.9	2,021.8	3,176.9	3,096.4	80.52	39.455	
10,906.2	7,500.0	7,520.0	7,423.7	66.2	19.6	88.68	6,294.9	2,021.8	3,089.4	3,007.3	82.10	37.628	
11,000.0	7,500.0	7,520.0	7,423.7	67.7	19.6	88.68	6,294.9	2,021.8	3,013.6	2,929.9	83.72	35.995	
11,100.0	7,500.0	7,525.4	7,429.1	69.4	19.6	88.86	6,295.0	2,021.7	2,934.0	2,848.5	85.46	34.331	
11,200.0	7,500.0	7,527.3	7,430.9	71.0	19.6	88.91	6,295.1	2,021.7	2,855.7	2,768.5	87.20	32.750	
11,256.2	7,500.0	7,528.3	7,432.0	72.0	19.6	88.95	6,295.1	2,021.7	2,812.2	2,724.1	88.17	31.895	
11,300.0	7,500.0	7,529.1	7,432.8	72.7	19.6	88.96	6,295.1	2,021.7	2,778.6	2,689.6	89.04	31.207	
11,400.0	7,500.0	7,531.0	7,434.6	74.4	19.6	89.00	6,295.2	2,021.6	2,702.1	2,611.1	91.00	29.694	
11,500.0	7,500.0	7,532.8	7,436.5	76.1	19.6	89.04	6,295.2	2,021.6	2,625.9	2,533.0	92.93	28.256	
11,600.0	7,500.0	7,534.7	7,438.3	77.8	19.6	89.09	6,295.2	2,021.6	2,550.3	2,455.5	94.85	26.889	
11,700.0	7,500.0	7,536.6	7,440.2	79.5	19.7	89.14	6,295.3	2,021.6	2,475.2	2,378.5	96.74	25.587	
11,800.0	7,500.0	7,538.4	7,442.1	81.2	19.7	89.19	6,295.3	2,021.6	2,400.7	2,302.1	98.61	24.347	
11,900.0	7,500.0	7,540.3	7,444.0	82.9	19.7	89.24	6,295.4	2,021.5	2,327.0	2,226.5	100.45	23.166	
12,000.0	7,500.0	7,542.2	7,445.9	84.7	19.7	89.29	6,295.4	2,021.5	2,254.0	2,151.7	102.26	22.041	
12,100.0	7,500.0	7,544.1	7,447.8	86.4	19.7	89.35	6,295.5	2,021.5	2,181.9	2,077.9	104.06	20.969	
12,169.2	7,500.0	7,545.4	7,449.1	87.6	19.7	89.39	6,295.5	2,021.5	2,132.6	2,027.4	105.28	20.257	
12,200.0	7,500.0	7,546.0	7,449.7	88.1	19.7	89.42	6,295.5	2,021.5	2,110.9	2,005.1	105.82	19.949	
12,300.0	7,500.0	7,547.9	7,451.6	89.8	19.7	89.49	6,295.5	2,021.4	2,042.0	1,934.5	107.56	18.986	
12,400.0	7,500.0	7,549.9	7,453.6	91.6	19.7	89.56	6,295.6	2,021.4	1,975.8	1,866.5	109.30	18.077	
12,500.0	7,500.0	7,551.9	7,455.5	93.3	19.7	89.64	6,295.6	2,021.4	1,912.5	1,801.5	111.04	17.224	
12,600.0	7,500.0	7,553.9	7,457.6	95.0	19.7	89.72	6,295.7	2,021.4	1,852.5	1,739.7	112.78	16.425	
12,700.0	7,500.0	7,555.9	7,459.6	96.8	19.7	89.79	6,295.7	2,021.3	1,796.0	1,681.5	114.53	15.682	
12,800.0	7,500.0	7,560.0	7,463.7	98.5	19.7	89.95	6,295.8	2,021.3	1,743.4	1,627.2	116.27	14.994	
12,900.0	7,500.0	7,560.1	7,463.7	100.2	19.7	89.95	6,295.8	2,021.3	1,695.1	1,577.1	118.01	14.364	
13,000.0	7,500.0	7,562.5	7,466.1	102.0	19.7	90.04	6,295.9	2,021.3	1,651.5	1,531.7	119.76	13.790	
13,100.0	7,500.0	7,564.8	7,468.4	103.7	19.7	90.13	6,295.9	2,021.3	1,612.8	1,491.3	121.50	13.274	
13,200.0	7,500.0	7,567.0	7,470.7	105.4	19.7	90.22	6,296.0	2,021.2	1,579.6	1,456.3	123.24	12.816	
13,300.0	7,500.0	7,569.3	7,472.9	107.2	19.7	90.30	6,296.0	2,021.2	1,552.0	1,427.1	124.99	12.417	
13,400.0	7,500.0	7,571.4	7,475.1	108.9	19.7	90.38	6,296.1	2,021.2	1,530.6	1,403.9	126.73	12.077	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BULTHAUP 21-6 (EXISTING) - KERR-MCGEE WEL													Offset Site Error: 0.0 ft
Survey Program: 40-Geolink 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	
13,500.0	7,500.0	7,573.6	7,477.2	110.7	19.7	90.47	6,296.1	2,021.2	1,515.4	1,386.9	128.48	11.795	
13,600.0	7,500.0	7,575.7	7,479.3	112.4	19.7	90.55	6,296.2	2,021.1	1,506.8	1,376.5	130.22	11.571	
13,681.0	7,500.0	7,577.4	7,481.0	113.8	19.7	90.61	6,296.2	2,021.1	1,504.6	1,372.9	131.64	11.430 CC	
13,700.0	7,500.0	7,577.7	7,481.4	114.1	19.7	90.62	6,296.2	2,021.1	1,504.7	1,372.7	131.97	11.402 ES	
13,800.0	7,500.0	7,579.8	7,483.4	115.9	19.7	90.70	6,296.3	2,021.1	1,509.3	1,375.6	133.71	11.287	
13,900.0	7,500.0	7,581.8	7,485.4	117.6	19.7	90.78	6,296.3	2,021.1	1,520.4	1,385.0	135.46	11.224	
14,000.0	7,500.0	7,583.7	7,487.4	119.4	19.7	90.85	6,296.4	2,021.1	1,538.0	1,400.8	137.20	11.210 SF	
14,100.0	7,500.0	7,585.6	7,489.3	121.1	19.7	90.92	6,296.4	2,021.0	1,561.8	1,422.9	138.95	11.240	
14,200.0	7,500.0	7,587.5	7,491.1	122.8	19.7	91.00	6,296.5	2,021.0	1,591.5	1,450.9	140.69	11.312	
14,300.0	7,500.0	7,589.3	7,493.0	124.6	19.7	91.07	6,296.5	2,021.0	1,626.9	1,484.5	142.44	11.422	
14,400.0	7,500.0	7,591.2	7,494.8	126.3	19.7	91.14	6,296.5	2,021.0	1,667.5	1,523.3	144.18	11.565	
14,455.0	7,500.0	7,592.2	7,495.8	127.3	19.7	91.17	6,296.5	2,021.0	1,691.9	1,546.8	145.14	11.657	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BULTHAUP 23-6 (EXISTING) - KERR-MCGEE WEL													Offset Site Error:	0.0 ft
Survey Program: 771-Geolink 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	39.0	39.0	0.0	0.1	38.27	2,899.7	2,287.7	3,693.6					
100.0	100.0	141.5	141.5	0.2	0.2	38.27	2,899.7	2,287.7	3,693.5	3,693.1	0.40	9,248.729		
200.0	200.0	244.1	244.1	0.3	0.4	38.27	2,899.6	2,287.6	3,693.4	3,692.6	0.75	4,904.261		
300.0	300.0	346.7	346.7	0.5	0.6	38.27	2,899.5	2,287.5	3,693.2	3,692.1	1.11	3,336.693		
400.0	400.0	449.2	449.2	0.7	0.8	38.27	2,899.3	2,287.3	3,692.9	3,691.4	1.46	2,528.386		
500.0	500.0	551.8	551.8	0.8	1.0	38.27	2,899.0	2,287.0	3,692.6	3,690.7	1.81	2,035.236		
600.0	600.0	654.3	654.3	1.0	1.1	-58.14	2,898.7	2,286.7	3,691.7	3,689.5	2.17	1,703.734		
700.0	700.0	756.8	756.8	1.2	1.3	-58.20	2,898.4	2,286.4	3,689.8	3,687.3	2.52	1,462.925		
800.0	799.9	852.4	852.4	1.4	1.5	-58.28	2,898.2	2,285.8	3,687.1	3,684.2	2.87	1,284.877		
900.0	899.7	936.4	936.3	1.6	1.6	-58.39	2,898.5	2,285.2	3,683.7	3,680.5	3.20	1,150.052		
1,000.0	999.4	1,056.9	1,056.9	1.8	1.8	-58.57	2,899.0	2,284.4	3,679.4	3,675.8	3.61	1,019.360		
1,026.5	1,025.7	1,084.0	1,083.9	1.8	1.9	-58.61	2,899.0	2,284.1	3,678.1	3,674.4	3.71	991.403		
1,100.0	1,098.9	1,158.3	1,158.3	2.0	2.0	-58.71	2,898.9	2,283.5	3,674.1	3,670.1	3.99	920.945		
1,200.0	1,198.5	1,245.0	1,245.0	2.2	2.2	-58.83	2,899.2	2,282.5	3,668.9	3,664.5	4.35	843.722		
1,300.0	1,298.1	1,332.0	1,332.0	2.4	2.3	-58.96	2,899.8	2,281.5	3,664.0	3,659.3	4.71	777.757		
1,400.0	1,397.7	1,400.2	1,400.2	2.7	2.4	-59.07	2,901.1	2,280.4	3,659.8	3,654.8	5.04	725.537		
1,500.0	1,497.3	1,499.3	1,499.1	2.9	2.6	-59.27	2,905.0	2,277.2	3,656.3	3,650.9	5.44	672.045		
1,600.0	1,596.8	1,584.5	1,584.1	3.1	2.8	-59.47	2,909.6	2,272.6	3,652.6	3,646.8	5.82	627.631		
1,700.0	1,696.4	1,650.1	1,649.4	3.3	2.9	-59.65	2,914.1	2,268.6	3,649.8	3,643.6	6.17	591.666		
1,800.0	1,796.0	1,720.0	1,718.8	3.6	3.1	-59.85	2,920.3	2,263.6	3,648.1	3,641.6	6.53	558.241		
1,894.6	1,890.2	1,762.3	1,760.8	3.8	3.2	-59.99	2,924.8	2,260.5	3,647.5	3,640.7	6.84	533.507		
1,900.0	1,895.6	1,765.3	1,763.7	3.8	3.2	-60.00	2,925.1	2,260.3	3,647.5	3,640.7	6.86	532.058		
2,000.0	1,995.2	1,816.0	1,814.0	4.0	3.3	-60.16	2,931.1	2,256.5	3,648.2	3,641.0	7.19	507.369		
2,100.0	2,094.7	1,868.3	1,865.6	4.3	3.4	-60.34	2,938.1	2,252.6	3,650.3	3,642.7	7.54	484.115		
2,200.0	2,194.3	1,910.0	1,906.7	4.5	3.5	-60.49	2,944.5	2,249.4	3,653.8	3,645.9	7.87	464.551		
2,300.0	2,293.9	1,969.1	1,964.8	4.7	3.7	-60.71	2,954.3	2,244.9	3,658.7	3,650.4	8.24	443.772		
2,400.0	2,393.5	2,033.4	2,027.9	5.0	3.9	-60.96	2,966.1	2,240.1	3,664.9	3,656.2	8.64	424.055		
2,500.0	2,493.0	2,119.6	2,112.3	5.2	4.2	-61.29	2,982.1	2,233.6	3,671.6	3,662.5	9.11	403.113		
2,600.0	2,592.6	2,195.0	2,186.1	5.4	4.4	-61.59	2,996.6	2,228.0	3,679.1	3,669.6	9.55	385.223		
2,700.0	2,692.2	2,323.7	2,312.1	5.7	4.8	-62.08	3,020.9	2,218.6	3,686.5	3,676.4	10.15	363.134		
2,800.0	2,791.8	2,415.9	2,402.4	5.9	5.1	-62.43	3,038.1	2,211.5	3,693.7	3,683.0	10.65	346.713		
2,900.0	2,891.4	2,479.0	2,464.2	6.1	5.3	-62.68	3,050.0	2,206.8	3,701.4	3,690.3	11.07	334.434		
3,000.0	2,990.9	2,558.0	2,541.5	6.4	5.6	-62.98	3,065.3	2,201.2	3,709.9	3,698.4	11.53	321.665		
3,100.0	3,090.5	2,644.5	2,626.0	6.6	6.0	-63.31	3,082.8	2,195.1	3,719.2	3,707.2	12.03	309.087		
3,200.0	3,190.1	2,780.9	2,759.2	6.8	6.5	-63.85	3,110.3	2,184.4	3,728.2	3,715.5	12.69	293.782		
3,300.0	3,289.7	2,859.0	2,835.6	7.1	6.7	-64.14	3,125.6	2,178.8	3,737.2	3,724.1	13.15	284.148		
3,400.0	3,389.2	2,979.1	2,953.1	7.3	7.2	-64.59	3,148.6	2,170.5	3,746.2	3,732.5	13.75	272.471		
3,500.0	3,488.8	3,049.0	3,021.5	7.6	7.5	-64.85	3,162.1	2,165.5	3,755.3	3,741.1	14.19	264.630		
3,600.0	3,588.4	3,144.0	3,114.4	7.8	7.8	-65.21	3,180.8	2,158.8	3,765.0	3,750.3	14.71	255.881		
3,700.0	3,688.0	3,237.2	3,205.6	8.0	8.2	-65.55	3,199.3	2,152.5	3,775.1	3,759.9	15.22	247.978		
3,800.0	3,787.6	3,358.9	3,324.7	8.3	8.6	-65.99	3,222.8	2,144.0	3,784.8	3,768.9	15.83	239.113		
3,900.0	3,887.1	3,444.1	3,407.9	8.5	9.0	-66.32	3,239.7	2,137.3	3,794.6	3,778.2	16.33	232.396		
4,000.0	3,986.7	3,538.7	3,500.3	8.7	9.4	-66.68	3,258.6	2,129.7	3,804.7	3,787.8	16.85	225.749		
4,100.0	4,086.3	3,640.6	3,599.9	9.0	9.8	-67.06	3,278.6	2,121.9	3,814.8	3,797.4	17.40	219.248		
4,200.0	4,185.9	3,719.5	3,676.9	9.2	10.1	-67.35	3,294.5	2,115.6	3,825.4	3,807.5	17.88	213.980		
4,300.0	4,285.4	3,807.0	3,762.5	9.4	10.4	-67.67	3,311.9	2,109.6	3,836.4	3,818.1	18.36	209.008		
4,400.0	4,385.0	3,885.7	3,839.5	9.7	10.7	-67.93	3,327.5	2,105.2	3,848.0	3,829.1	18.81	204.561		
4,500.0	4,484.6	3,962.8	3,914.9	9.9	11.0	-68.20	3,343.0	2,100.9	3,860.1	3,840.8	19.26	200.409		
4,600.0	4,584.2	4,136.6	4,084.9	10.2	11.7	-68.79	3,377.5	2,090.6	3,872.1	3,852.1	20.00	193.635		
4,700.0	4,683.8	4,248.4	4,194.2	10.4	12.1	-69.20	3,398.9	2,081.2	3,882.3	3,861.7	20.57	188.694		
4,800.0	4,783.3	4,313.8	4,258.1	10.6	12.4	-69.44	3,411.8	2,075.5	3,893.0	3,872.0	21.00	185.344		
4,900.0	4,882.9	4,376.0	4,318.8	10.9	12.7	-69.67	3,424.5	2,070.6	3,904.9	3,883.5	21.42	182.302		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BULTHAUP 23-6 (EXISTING) - KERR-MCGEE WEL													Offset Site Error:	0.0 ft
Survey Program: 771-Geolink 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		
5,000.0	4,982.5	4,504.5	4,444.4	11.1	13.2	-70.11	3,449.8	2,061.6	3,916.6	3,894.6	22.02	177.882		
5,100.0	5,082.1	4,566.0	4,504.5	11.3	13.4	-70.33	3,462.1	2,057.2	3,928.7	3,906.3	22.43	175.162		
5,200.0	5,181.7	4,649.6	4,586.1	11.6	13.8	-70.62	3,479.4	2,051.2	3,941.6	3,918.7	22.91	172.084		
5,300.0	5,281.2	5,397.7	5,326.5	11.8	15.6	-72.48	3,561.7	2,019.5	3,949.3	3,924.7	24.62	160.425		
5,400.0	5,380.8	5,488.5	5,417.3	12.0	15.7	-72.61	3,561.9	2,018.9	3,946.4	3,921.5	24.96	158.096		
5,500.0	5,480.4	5,576.4	5,505.3	12.3	15.8	-72.73	3,562.3	2,018.3	3,943.9	3,918.6	25.31	155.847		
5,600.0	5,580.0	5,676.0	5,604.8	12.5	16.0	-72.87	3,563.1	2,017.5	3,941.6	3,915.9	25.67	153.553		
5,700.0	5,679.5	5,784.4	5,713.2	12.8	16.1	-73.03	3,564.0	2,016.2	3,939.1	3,913.0	26.05	151.205		
5,800.0	5,779.1	5,876.3	5,805.0	13.0	16.2	-73.17	3,564.7	2,014.8	3,936.6	3,910.2	26.41	149.056		
5,900.0	5,878.7	5,963.2	5,892.0	13.2	16.3	-73.30	3,565.6	2,013.7	3,934.4	3,907.6	26.76	147.010		
6,000.0	5,978.3	6,062.2	5,991.0	13.5	16.5	-73.45	3,566.9	2,012.6	3,932.4	3,905.3	27.13	144.945		
6,100.0	6,077.9	6,177.5	6,106.2	13.7	16.6	-73.62	3,567.9	2,011.4	3,930.3	3,902.8	27.52	142.805		
6,200.0	6,177.4	6,275.0	6,203.7	13.9	16.7	-73.77	3,568.5	2,010.1	3,927.7	3,899.9	27.89	140.819		
6,300.0	6,277.0	6,351.8	6,280.6	14.2	16.8	-73.88	3,569.2	2,009.1	3,925.6	3,897.3	28.23	139.039		
6,400.0	6,376.6	6,461.0	6,389.7	14.4	17.0	-74.05	3,570.8	2,007.9	3,924.0	3,895.3	28.62	137.102		
6,500.0	6,476.2	6,535.4	6,464.1	14.7	17.1	-74.16	3,571.9	2,006.9	3,922.4	3,893.4	28.97	135.407		
6,600.0	6,575.7	6,701.1	6,629.8	14.9	17.3	-74.41	3,573.2	2,005.2	3,920.1	3,890.7	29.42	133.234		
6,700.0	6,675.3	6,786.7	6,715.3	15.1	17.4	-74.52	3,573.1	2,004.9	3,917.4	3,887.7	29.77	131.590		
6,800.0	6,774.9	6,879.4	6,808.1	15.4	17.5	-74.65	3,573.3	2,004.5	3,915.1	3,884.9	30.13	129.941		
6,900.0	6,874.5	6,973.8	6,902.4	15.6	17.7	-74.78	3,573.7	2,003.9	3,912.8	3,882.3	30.50	128.308		
6,949.9	6,924.1	7,014.7	6,943.3	15.7	17.7	-74.84	3,574.0	2,003.6	3,911.7	3,881.1	30.67	127.541		
7,000.0	6,974.0	7,060.3	6,988.9	15.8	17.8	-28.58	3,574.4	2,003.2	3,908.8	3,878.0	30.74	127.143		
7,050.0	7,023.4	7,111.3	7,040.0	15.9	17.8	-7.90	3,574.9	2,002.9	3,901.8	3,871.1	30.66	127.239		
7,100.0	7,072.1	7,159.5	7,088.1	16.0	17.9	1.47	3,575.2	2,002.8	3,890.7	3,860.3	30.43	127.861		
7,150.0	7,119.7	7,205.0	7,133.6	16.2	18.0	6.82	3,575.6	2,002.6	3,875.8	3,845.8	30.04	129.013		
7,200.0	7,165.9	7,252.9	7,181.5	16.3	18.0	10.53	3,576.0	2,002.2	3,857.1	3,827.6	29.52	130.666		
7,250.0	7,210.2	7,302.8	7,231.4	16.4	18.1	13.53	3,576.4	2,002.0	3,834.7	3,805.8	28.88	132.793		
7,300.0	7,252.5	7,346.0	7,274.7	16.5	18.1	16.26	3,576.6	2,001.9	3,808.8	3,780.7	28.13	135.378		
7,350.0	7,292.2	7,383.6	7,312.2	16.7	18.2	18.97	3,576.9	2,001.7	3,779.6	3,752.3	27.33	138.296		
7,400.0	7,329.2	7,419.0	7,347.6	16.8	18.2	21.87	3,577.1	2,001.5	3,747.4	3,720.9	26.53	141.271		
7,450.0	7,363.2	7,456.1	7,384.7	17.0	18.3	25.18	3,577.5	2,001.2	3,712.4	3,686.6	25.82	143.791		
7,500.0	7,393.8	7,489.9	7,418.6	17.3	18.3	29.07	3,577.7	2,000.8	3,674.9	3,649.6	25.32	145.118		
7,550.0	7,421.0	7,515.0	7,443.6	17.5	18.4	33.70	3,577.9	2,000.6	3,635.1	3,609.9	25.20	144.275		
7,600.0	7,444.3	7,535.4	7,464.0	17.8	18.4	39.34	3,578.1	2,000.4	3,593.5	3,567.9	25.64	140.175		
7,650.0	7,463.8	7,549.8	7,478.4	18.2	18.4	46.23	3,578.2	2,000.3	3,550.3	3,523.5	26.78	132.554		
7,700.0	7,479.2	7,561.3	7,490.0	18.5	18.4	54.64	3,578.4	2,000.2	3,506.0	3,477.3	28.64	122.409		
7,750.0	7,490.4	7,569.9	7,498.6	18.9	18.5	64.61	3,578.5	2,000.2	3,460.8	3,429.9	30.91	111.965		
7,800.0	7,497.4	7,575.4	7,504.1	19.3	18.5	75.82	3,578.5	2,000.1	3,415.0	3,382.0	33.00	103.499		
7,850.0	7,500.0	7,577.8	7,506.5	19.8	18.5	87.47	3,578.6	2,000.1	3,369.1	3,334.9	34.27	98.317		
7,855.2	7,500.0	7,577.9	7,506.5	19.9	18.5	88.66	3,578.6	2,000.1	3,364.4	3,330.0	34.34	97.980		
7,900.0	7,500.0	7,578.3	7,506.9	20.3	18.5	88.68	3,578.6	2,000.1	3,323.4	3,288.5	34.86	95.344		
8,000.0	7,500.0	7,579.2	7,507.9	21.3	18.5	88.72	3,578.6	2,000.1	3,232.2	3,196.1	36.08	89.574		
8,100.0	7,500.0	7,580.2	7,508.8	22.5	18.5	88.76	3,578.6	2,000.1	3,141.5	3,104.1	37.39	84.017		
8,200.0	7,500.0	7,581.2	7,509.8	23.7	18.5	88.80	3,578.6	2,000.1	3,051.5	3,012.7	38.76	78.718		
8,300.0	7,500.0	7,582.1	7,510.8	25.0	18.5	88.84	3,578.6	2,000.1	2,962.0	2,921.8	40.19	73.700		
8,400.0	7,500.0	7,583.1	7,511.7	26.3	18.5	88.88	3,578.6	2,000.1	2,873.3	2,831.6	41.66	68.969		
8,500.0	7,500.0	7,584.1	7,512.7	27.7	18.5	88.92	3,578.6	2,000.1	2,785.3	2,742.1	43.17	64.525		
8,600.0	7,500.0	7,585.1	7,513.8	29.1	18.5	88.97	3,578.7	2,000.1	2,698.2	2,653.5	44.70	60.358		
8,700.0	7,500.0	7,586.2	7,514.8	30.5	18.5	89.01	3,578.7	2,000.1	2,612.0	2,565.7	46.27	56.457		
8,800.0	7,500.0	7,587.2	7,515.8	32.0	18.5	89.06	3,578.7	2,000.1	2,526.8	2,478.9	47.85	52.808		
8,900.0	7,500.0	7,588.3	7,516.9	33.5	18.5	89.10	3,578.7	2,000.1	2,442.7	2,393.3	49.45	49.397		
9,000.0	7,500.0	7,589.3	7,518.0	35.1	18.5	89.15	3,578.7	2,000.1	2,359.9	2,308.8	51.07	46.211		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BULTHAUP 23-6 (EXISTING) - KERR-MCGEE WEL												Offset Site Error:	0.0 ft
Survey Program: 771-Geolink 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
9,100.0	7,500.0	7,590.4	7,519.0	36.6	18.5	89.19	3,578.7	2,000.1	2,278.4	2,225.7	52.70	43.236	
9,200.0	7,500.0	7,591.5	7,520.1	38.2	18.5	89.24	3,578.7	2,000.1	2,198.5	2,144.2	54.34	40.458	
9,300.0	7,500.0	7,592.6	7,521.3	39.8	18.5	89.29	3,578.8	2,000.1	2,120.3	2,064.3	55.99	37.867	
9,400.0	7,500.0	7,593.8	7,522.4	41.4	18.5	89.33	3,578.8	2,000.1	2,044.0	1,986.3	57.65	35.452	
9,500.0	7,500.0	7,594.9	7,523.5	43.0	18.5	89.38	3,578.8	2,000.0	1,969.8	1,910.4	59.32	33.204	
9,600.0	7,500.0	7,596.1	7,524.7	44.6	18.5	89.43	3,578.8	2,000.0	1,897.9	1,836.9	61.00	31.114	
9,700.0	7,500.0	7,597.3	7,525.9	46.2	18.5	89.48	3,578.8	2,000.0	1,828.7	1,766.1	62.68	29.175	
9,800.0	7,500.0	7,598.4	7,527.1	47.9	18.5	89.53	3,578.8	2,000.0	1,762.5	1,698.1	64.37	27.381	
9,900.0	7,500.0	7,599.7	7,528.3	49.5	18.5	89.59	3,578.9	2,000.0	1,699.6	1,633.5	66.06	25.727	
10,000.0	7,500.0	7,600.9	7,529.5	51.2	18.5	89.64	3,578.9	2,000.0	1,640.4	1,572.6	67.76	24.209	
10,046.2	7,500.0	7,601.5	7,530.1	51.9	18.5	89.66	3,578.9	2,000.0	1,614.4	1,545.8	68.54	23.552	
10,100.0	7,500.0	7,602.1	7,530.8	52.8	18.5	89.69	3,578.9	2,000.0	1,585.4	1,516.0	69.39	22.847	
10,200.0	7,500.0	7,603.4	7,532.0	54.5	18.5	89.75	3,578.9	2,000.0	1,536.4	1,465.5	70.96	21.652	
10,300.0	7,500.0	7,610.0	7,538.6	56.1	18.5	90.03	3,579.0	2,000.0	1,494.2	1,421.6	72.53	20.602	
10,400.0	7,500.0	7,610.0	7,538.6	57.8	18.5	90.03	3,579.0	2,000.0	1,459.2	1,385.1	74.06	19.701	
10,500.0	7,500.0	7,610.0	7,538.6	59.5	18.5	90.03	3,579.0	2,000.0	1,432.0	1,356.4	75.59	18.945	
10,600.0	7,500.0	7,610.0	7,538.6	61.1	18.5	90.03	3,579.0	2,000.0	1,413.1	1,336.0	77.10	18.329	
10,700.0	7,500.0	7,610.0	7,538.6	62.8	18.5	90.03	3,579.0	2,000.0	1,402.9	1,324.3	78.59	17.851	
10,765.7	7,500.0	7,610.0	7,538.6	63.8	18.5	90.03	3,579.0	2,000.0	1,401.0	1,321.4	79.56	17.609 CC, ES	
10,800.0	7,500.0	7,610.0	7,538.6	64.4	18.5	90.03	3,579.0	2,000.0	1,401.5	1,321.4	80.06	17.505	
10,906.2	7,500.0	7,613.2	7,541.8	66.2	18.5	90.16	3,579.1	2,000.0	1,409.7	1,328.1	81.62	17.273	
11,000.0	7,500.0	7,614.6	7,543.2	67.7	18.5	90.21	3,579.1	2,000.0	1,424.4	1,341.1	83.24	17.113	
11,100.0	7,500.0	7,616.0	7,544.6	69.4	18.5	90.27	3,579.1	2,000.0	1,446.6	1,361.6	84.96	17.025	
11,200.0	7,500.0	7,617.5	7,546.1	71.0	18.5	90.33	3,579.1	2,000.0	1,475.2	1,388.5	86.70	17.016 SF	
11,256.2	7,500.0	7,618.3	7,546.9	72.0	18.5	90.36	3,579.1	2,000.0	1,494.0	1,406.3	87.67	17.041	
11,300.0	7,500.0	7,618.9	7,547.5	72.7	18.5	90.39	3,579.1	2,000.0	1,509.8	1,421.2	88.55	17.050	
11,400.0	7,500.0	7,620.3	7,549.0	74.4	18.5	90.44	3,579.2	2,000.0	1,548.7	1,458.2	90.54	17.106	
11,500.0	7,500.0	7,621.8	7,550.4	76.1	18.5	90.50	3,579.2	2,000.0	1,591.4	1,498.9	92.51	17.203	
11,600.0	7,500.0	7,623.2	7,551.8	77.8	18.5	90.55	3,579.2	2,000.0	1,637.6	1,543.2	94.45	17.338	
11,700.0	7,500.0	7,624.6	7,553.2	79.5	18.5	90.60	3,579.2	2,000.0	1,687.0	1,590.6	96.38	17.504	
11,800.0	7,500.0	7,626.0	7,554.6	81.2	18.5	90.65	3,579.3	2,000.0	1,739.3	1,641.0	98.28	17.698	
11,900.0	7,500.0	7,627.4	7,556.0	82.9	18.5	90.70	3,579.3	1,999.9	1,794.2	1,694.0	100.15	17.915	
12,000.0	7,500.0	7,628.8	7,557.4	84.7	18.5	90.74	3,579.3	1,999.9	1,851.4	1,749.4	102.00	18.152	
12,100.0	7,500.0	7,630.2	7,558.8	86.4	18.5	90.78	3,579.3	1,999.9	1,910.8	1,807.0	103.82	18.405	
12,169.2	7,500.0	7,631.2	7,559.8	87.6	18.5	90.81	3,579.3	1,999.9	1,953.1	1,848.0	105.07	18.589	
12,200.0	7,500.0	7,631.6	7,560.2	88.1	18.5	90.83	3,579.3	1,999.9	1,972.2	1,866.6	105.60	18.676	
12,300.0	7,500.0	7,633.0	7,561.6	89.8	18.5	90.88	3,579.4	1,999.9	2,036.4	1,929.1	107.34	18.972	
12,400.0	7,500.0	7,634.3	7,562.9	91.6	18.6	90.93	3,579.4	1,999.9	2,103.3	1,994.3	109.08	19.283	
12,500.0	7,500.0	7,635.7	7,564.3	93.3	18.6	90.98	3,579.4	1,999.9	2,172.8	2,062.0	110.81	19.608	
12,600.0	7,500.0	7,637.1	7,565.7	95.0	18.6	91.03	3,579.4	1,999.9	2,244.6	2,132.1	112.55	19.943	
12,700.0	7,500.0	7,638.4	7,567.0	96.8	18.6	91.08	3,579.4	1,999.9	2,318.5	2,204.2	114.29	20.286	
12,800.0	7,500.0	7,639.8	7,568.4	98.5	18.6	91.13	3,579.5	1,999.9	2,394.3	2,278.3	116.03	20.635	
12,900.0	7,500.0	7,641.1	7,569.7	100.2	18.6	91.18	3,579.5	1,999.9	2,471.8	2,354.0	117.77	20.989	
13,000.0	7,500.0	7,642.5	7,571.1	102.0	18.6	91.23	3,579.5	1,999.9	2,550.9	2,431.3	119.51	21.345	
13,100.0	7,500.0	7,643.8	7,572.4	103.7	18.6	91.28	3,579.5	1,999.9	2,631.3	2,510.1	121.25	21.702	
13,200.0	7,500.0	7,645.2	7,573.8	105.4	18.6	91.33	3,579.5	1,999.9	2,713.1	2,590.1	122.99	22.060	
13,300.0	7,500.0	7,646.5	7,575.1	107.2	18.6	91.38	3,579.6	1,999.9	2,796.1	2,671.4	124.73	22.417	
13,400.0	7,500.0	7,647.8	7,576.5	108.9	18.6	91.43	3,579.6	1,999.9	2,880.2	2,753.7	126.47	22.773	
13,500.0	7,500.0	7,649.2	7,577.8	110.7	18.6	91.48	3,579.6	1,999.9	2,965.2	2,837.0	128.21	23.127	
13,600.0	7,500.0	7,650.5	7,579.1	112.4	18.6	91.53	3,579.6	1,999.9	3,051.2	2,921.2	129.95	23.479	
13,700.0	7,500.0	7,651.8	7,580.4	114.1	18.6	91.58	3,579.6	1,999.9	3,137.9	3,006.2	131.69	23.827	
13,800.0	7,500.0	7,653.1	7,581.8	115.9	18.6	91.63	3,579.7	1,999.9	3,225.5	3,092.0	133.44	24.172	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - BULTHAUP 23-6 (EXISTING) - KERR-MCGEE WEL		Offset Site Error:		0.0 ft
Survey Program:													771-Geolink MWD		Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor						
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)									
13,900.0	7,500.0	7,654.5	7,583.1	117.6	18.6	91.68	3,579.7	1,999.9	3,313.7	3,178.6	135.18	24.514					
14,000.0	7,500.0	7,655.8	7,584.4	119.4	18.6	91.73	3,579.7	1,999.9	3,402.6	3,265.7	136.92	24.851					
14,100.0	7,500.0	7,657.1	7,585.7	121.1	18.6	91.78	3,579.7	1,999.9	3,492.1	3,353.5	138.66	25.184					
14,200.0	7,500.0	7,658.4	7,587.0	122.8	18.6	91.83	3,579.7	1,999.9	3,582.2	3,441.8	140.41	25.513					
14,300.0	7,500.0	7,659.7	7,588.3	124.6	18.6	91.87	3,579.8	1,999.9	3,672.8	3,530.6	142.15	25.838					
14,400.0	7,500.0	7,661.0	7,589.6	126.3	18.6	91.92	3,579.8	1,999.9	3,763.8	3,619.9	143.89	26.158					
14,455.0	7,500.0	7,661.7	7,590.3	127.3	18.6	91.95	3,579.8	1,999.9	3,814.1	3,669.2	144.85	26.332					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SU													Offset Site Error:	0.0 ft
Survey Program: 132-Geolink 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	64.3	64.3	0.0	0.1	35.39	1,607.2	1,141.5	1,971.4					
100.0	100.0	189.6	189.6	0.2	0.3	35.34	1,606.8	1,139.3	1,970.1	1,969.6	0.49	4,054.195		
200.0	200.0	325.0	324.9	0.3	0.6	35.25	1,605.5	1,134.8	1,967.4	1,966.5	0.91	2,172.004		
300.0	300.0	433.8	433.5	0.5	0.8	35.12	1,604.3	1,128.5	1,963.1	1,961.8	1.28	1,533.285		
400.0	400.0	519.8	519.2	0.7	1.0	34.95	1,605.3	1,121.8	1,959.6	1,958.0	1.61	1,218.653		
500.0	500.0	782.0	777.8	0.8	1.9	33.84	1,611.1	1,080.2	1,952.8	1,950.5	2.31	845.961		
600.0	600.0	906.9	899.8	1.0	2.4	-63.36	1,610.7	1,053.1	1,939.9	1,936.7	3.20	605.609		
700.0	700.0	1,027.6	1,017.6	1.2	2.9	-64.20	1,609.3	1,027.2	1,926.0	1,922.2	3.81	505.883		
800.0	799.9	1,165.1	1,151.1	1.4	3.5	-65.31	1,606.5	994.4	1,909.6	1,905.0	4.54	420.549		
900.0	899.7	1,269.1	1,251.4	1.6	4.0	-66.35	1,604.0	966.7	1,891.0	1,885.8	5.19	364.226		
1,000.0	999.4	1,384.6	1,362.4	1.8	4.6	-67.60	1,601.6	935.0	1,871.9	1,866.0	5.92	316.180		
1,026.5	1,025.7	1,409.8	1,386.7	1.8	4.7	-67.89	1,600.9	928.1	1,866.6	1,860.5	6.10	306.205		
1,100.0	1,098.9	1,477.5	1,451.6	2.0	5.1	-68.55	1,598.9	909.3	1,852.0	1,845.4	6.57	281.703		
1,200.0	1,198.5	1,557.0	1,527.9	2.2	5.5	-69.36	1,597.4	886.9	1,833.1	1,825.9	7.18	255.173		
1,300.0	1,298.1	1,631.9	1,599.9	2.4	5.9	-70.13	1,596.4	866.2	1,815.5	1,807.8	7.77	233.754		
1,400.0	1,397.7	1,740.4	1,704.3	2.7	6.5	-71.24	1,594.6	836.9	1,798.6	1,790.0	8.53	210.928		
1,500.0	1,497.3	1,829.6	1,789.8	2.9	6.9	-72.21	1,593.5	811.6	1,781.9	1,772.6	9.24	192.913		
1,600.0	1,596.8	1,933.4	1,888.9	3.1	7.5	-73.40	1,592.4	780.8	1,765.5	1,755.4	10.05	175.744		
1,700.0	1,696.4	2,036.8	1,987.7	3.3	8.1	-74.61	1,591.0	750.2	1,749.5	1,738.7	10.84	161.332		
1,800.0	1,796.0	2,122.3	2,069.7	3.6	8.5	-75.56	1,588.4	726.2	1,733.5	1,722.0	11.52	150.413		
1,900.0	1,895.6	2,202.5	2,146.9	3.8	9.0	-76.46	1,587.1	704.4	1,719.4	1,707.2	12.20	140.930		
2,000.0	1,995.2	2,341.4	2,279.3	4.0	9.8	-78.16	1,584.3	662.5	1,704.8	1,691.5	13.27	128.502		
2,100.0	2,094.7	2,401.7	2,336.6	4.3	10.1	-78.92	1,583.0	643.9	1,690.5	1,676.6	13.87	121.862		
2,200.0	2,194.3	2,465.2	2,397.1	4.5	10.5	-79.74	1,582.8	624.5	1,678.7	1,664.2	14.50	115.795		
2,300.0	2,293.9	2,538.9	2,467.4	4.7	10.9	-80.69	1,583.5	602.6	1,669.1	1,653.9	15.18	109.959		
2,400.0	2,393.5	2,630.7	2,555.3	5.0	11.4	-81.85	1,584.4	576.0	1,660.7	1,644.7	15.96	104.022		
2,500.0	2,493.0	2,718.6	2,639.5	5.2	11.9	-82.98	1,585.7	550.6	1,653.4	1,636.7	16.73	98.817		
2,600.0	2,592.6	2,828.8	2,744.9	5.4	12.5	-84.40	1,586.7	518.6	1,646.5	1,628.9	17.63	93.389		
2,700.0	2,692.2	2,947.2	2,858.5	5.7	13.1	-85.90	1,586.0	485.3	1,639.2	1,620.7	18.54	88.404		
2,800.0	2,791.8	3,032.6	2,940.7	5.9	13.6	-86.95	1,584.8	462.2	1,632.1	1,612.9	19.25	84.772		
2,900.0	2,891.4	3,157.1	3,060.4	6.1	14.2	-88.51	1,581.6	428.1	1,624.5	1,604.3	20.19	80.443		
3,000.0	2,990.9	3,225.4	3,125.9	6.4	14.6	-89.39	1,580.2	408.8	1,618.3	1,597.4	20.83	77.689		
3,100.0	3,090.5	3,320.8	3,217.3	6.6	15.1	-90.64	1,578.7	381.5	1,613.2	1,591.5	21.62	74.611		
3,200.0	3,190.1	3,392.5	3,286.0	6.8	15.5	-91.58	1,578.2	361.1	1,609.7	1,587.4	22.27	72.287		
3,300.0	3,289.7	3,498.4	3,387.9	7.1	16.1	-92.94	1,577.2	332.1	1,607.0	1,583.9	23.07	69.642		
3,400.0	3,389.2	3,565.0	3,452.2	7.3	16.4	-93.76	1,576.8	314.7	1,605.5	1,581.9	23.65	67.873		
3,401.7	3,390.9	3,565.0	3,452.2	7.3	16.4	-93.76	1,576.8	314.7	1,605.5	1,581.9	23.66	67.862		
3,500.0	3,488.8	3,633.5	3,518.2	7.6	16.8	-94.63	1,577.5	296.5	1,606.4	1,582.1	24.27	66.181		
3,600.0	3,588.4	3,716.5	3,597.8	7.8	17.2	-95.72	1,579.8	273.1	1,609.4	1,584.4	24.97	64.454		
3,700.0	3,688.0	3,865.4	3,740.8	8.0	18.0	-97.66	1,581.1	231.4	1,611.5	1,585.5	26.00	61.990		
3,800.0	3,787.6	3,952.9	3,824.7	8.3	18.5	-98.80	1,580.6	207.0	1,613.2	1,586.5	26.69	60.433		
3,900.0	3,887.1	4,042.0	3,910.1	8.5	19.0	-99.97	1,580.5	181.5	1,616.2	1,588.8	27.41	58.974		
4,000.0	3,986.7	4,159.1	4,021.9	8.7	19.6	-101.55	1,579.5	146.7	1,619.5	1,591.3	28.26	57.303		
4,100.0	4,086.3	4,263.0	4,121.3	9.0	20.2	-102.93	1,576.8	116.6	1,621.9	1,592.9	29.02	55.886		
4,200.0	4,185.9	4,328.3	4,183.8	9.2	20.6	-103.79	1,575.4	97.8	1,625.8	1,596.2	29.58	54.966		
4,300.0	4,285.4	4,409.2	4,261.5	9.4	21.0	-104.83	1,575.6	74.9	1,632.4	1,602.2	30.18	54.095		
4,400.0	4,385.0	4,505.4	4,354.5	9.7	21.4	-105.96	1,576.1	50.5	1,639.7	1,608.9	30.77	53.282		
4,500.0	4,484.6	4,601.8	4,448.7	9.9	21.8	-106.94	1,577.4	30.2	1,647.5	1,616.2	31.30	52.631		
4,600.0	4,584.2	4,705.6	4,550.8	10.2	22.1	-107.87	1,579.2	11.7	1,655.6	1,623.8	31.80	52.054		
4,700.0	4,683.8	4,810.5	4,654.5	10.4	22.4	-108.71	1,581.1	-4.2	1,663.5	1,631.2	32.27	51.555		
4,800.0	4,783.3	4,909.8	4,752.9	10.6	22.7	-109.43	1,582.9	-17.6	1,671.4	1,638.7	32.69	51.131		
4,900.0	4,882.9	5,015.4	4,857.8	10.9	23.0	-110.13	1,585.2	-29.9	1,679.4	1,646.3	33.09	50.747		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 132-Geolink 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	
5,000.0	4,982.5	5,128.6	4,970.3	11.1	23.2	-110.83	1,587.1	-41.4	1,686.8	1,653.3	33.49	50.361	
5,100.0	5,082.1	5,232.5	5,073.8	11.3	23.4	-111.42	1,588.5	-50.7	1,693.8	1,659.9	33.85	50.031	
5,200.0	5,181.7	5,328.1	5,169.1	11.6	23.6	-111.89	1,590.4	-57.3	1,700.9	1,666.7	34.18	49.769	
5,300.0	5,281.2	5,438.4	5,279.2	11.8	23.7	-112.38	1,592.7	-63.3	1,708.0	1,673.5	34.50	49.513	
5,400.0	5,380.8	5,546.8	5,387.6	12.0	23.9	-112.81	1,594.6	-67.6	1,714.3	1,679.5	34.80	49.263	
5,500.0	5,480.4	5,648.6	5,489.2	12.3	24.0	-113.19	1,596.3	-71.1	1,720.5	1,685.4	35.10	49.023	
5,600.0	5,580.0	5,740.2	5,580.9	12.5	24.1	-113.53	1,598.0	-74.0	1,726.8	1,691.5	35.37	48.819	
5,700.0	5,679.5	5,834.0	5,674.6	12.8	24.2	-113.85	1,600.3	-76.6	1,733.8	1,698.1	35.65	48.631	
5,800.0	5,779.1	5,934.7	5,775.2	13.0	24.3	-114.18	1,603.1	-79.1	1,740.9	1,704.9	35.93	48.450	
5,900.0	5,878.7	6,041.2	5,881.7	13.2	24.4	-114.52	1,605.7	-81.6	1,747.7	1,711.5	36.21	48.269	
6,000.0	5,978.3	6,152.8	5,993.2	13.5	24.5	-114.85	1,608.1	-83.1	1,754.0	1,717.6	36.48	48.084	
6,100.0	6,077.9	6,254.2	6,094.6	13.7	24.6	-115.13	1,609.9	-83.9	1,759.9	1,723.1	36.75	47.884	
6,200.0	6,177.4	6,351.6	6,192.0	13.9	24.7	-115.41	1,611.7	-85.0	1,765.9	1,728.9	37.03	47.692	
6,300.0	6,277.0	6,445.6	6,286.0	14.2	24.8	-115.69	1,613.4	-86.5	1,772.1	1,734.8	37.31	47.504	
6,400.0	6,376.6	6,539.8	6,380.1	14.4	24.9	-115.97	1,615.4	-88.3	1,778.7	1,741.2	37.58	47.330	
6,500.0	6,476.2	6,640.5	6,480.8	14.7	25.0	-116.28	1,617.4	-90.5	1,785.5	1,747.6	37.87	47.148	
6,600.0	6,575.7	6,739.6	6,579.8	14.9	25.2	-116.59	1,619.3	-92.9	1,792.2	1,754.1	38.15	46.977	
6,700.0	6,675.3	6,835.4	6,675.5	15.1	25.3	-116.89	1,621.3	-95.1	1,799.2	1,760.7	38.43	46.823	
6,800.0	6,774.9	6,932.4	6,772.5	15.4	25.4	-117.17	1,623.7	-97.1	1,806.3	1,767.6	38.70	46.677	
6,900.0	6,874.5	7,030.5	6,870.6	15.6	25.5	-117.45	1,626.2	-98.8	1,813.6	1,774.6	38.97	46.539	
6,949.9	6,924.1	7,080.1	6,920.1	15.7	25.5	-117.59	1,627.5	-99.6	1,817.3	1,778.2	39.10	46.473	
7,000.0	6,974.0	7,130.7	6,970.7	15.8	25.6	-71.47	1,628.9	-100.3	1,818.9	1,779.7	39.19	46.413	
7,050.0	7,023.4	7,180.9	7,020.9	15.9	25.6	-51.31	1,630.3	-100.9	1,816.5	1,777.5	39.01	46.561	
7,100.0	7,072.1	7,230.6	7,070.5	16.0	25.7	-42.85	1,631.7	-101.5	1,810.1	1,771.5	38.58	46.914	
7,150.0	7,119.7	7,281.2	7,121.1	16.2	25.7	-38.83	1,633.1	-101.9	1,799.7	1,761.8	37.91	47.469	
7,200.0	7,165.9	7,330.4	7,170.4	16.3	25.8	-36.92	1,634.4	-102.3	1,785.4	1,748.4	37.02	48.231	
7,250.0	7,210.2	7,377.8	7,217.7	16.4	25.8	-36.26	1,635.5	-102.7	1,767.4	1,731.5	35.93	49.195	
7,300.0	7,252.5	7,422.1	7,262.0	16.5	25.9	-36.48	1,636.6	-103.1	1,745.8	1,711.2	34.67	50.352	
7,350.0	7,292.2	7,462.5	7,302.4	16.7	25.9	-37.40	1,637.6	-103.3	1,720.9	1,687.6	33.30	51.674	
7,400.0	7,329.2	7,500.4	7,340.3	16.8	25.9	-38.98	1,638.5	-103.4	1,693.0	1,661.1	31.89	53.093	
7,450.0	7,363.2	7,535.4	7,375.2	17.0	26.0	-41.23	1,639.4	-103.4	1,662.2	1,631.7	30.51	54.489	
7,500.0	7,393.8	7,567.2	7,407.0	17.3	26.0	-44.19	1,640.3	-103.4	1,628.8	1,599.6	29.26	55.663	
7,550.0	7,421.0	7,595.2	7,435.0	17.5	26.0	-47.93	1,641.1	-103.3	1,593.3	1,565.0	28.28	56.336	
7,600.0	7,444.3	7,619.4	7,459.2	17.8	26.0	-52.49	1,641.7	-103.3	1,555.8	1,528.1	27.68	56.197	
7,650.0	7,463.8	7,639.8	7,479.6	18.2	26.1	-57.96	1,642.3	-103.2	1,516.7	1,489.1	27.55	55.044	
7,700.0	7,479.2	7,656.2	7,496.0	18.5	26.1	-64.30	1,642.8	-103.1	1,476.4	1,448.5	27.88	52.953	
7,750.0	7,490.4	7,668.7	7,508.5	18.9	26.1	-71.41	1,643.2	-103.1	1,435.2	1,406.6	28.53	50.303	
7,800.0	7,497.4	7,676.9	7,516.7	19.3	26.1	-79.03	1,643.4	-103.1	1,393.4	1,364.2	29.28	47.593	
7,850.0	7,500.0	7,681.0	7,520.8	19.8	26.1	-86.79	1,643.5	-103.1	1,351.5	1,321.6	29.91	45.185	
7,855.2	7,500.0	7,681.2	7,521.0	19.9	26.1	-87.59	1,643.5	-103.1	1,347.2	1,317.2	29.97	44.959	
7,900.0	7,500.0	7,682.5	7,522.3	20.3	26.1	-87.69	1,643.6	-103.1	1,310.0	1,279.5	30.49	42.968	
8,000.0	7,500.0	7,685.4	7,525.2	21.3	26.1	-87.92	1,643.7	-103.0	1,228.7	1,196.9	31.72	38.736	
8,100.0	7,500.0	7,688.4	7,528.2	22.5	26.1	-88.15	1,643.8	-103.0	1,150.3	1,117.3	33.03	34.825	
8,200.0	7,500.0	7,691.3	7,531.1	23.7	26.1	-88.38	1,643.8	-103.0	1,075.5	1,041.1	34.41	31.258	
8,300.0	7,500.0	7,694.3	7,534.1	25.0	26.1	-88.61	1,643.9	-103.0	1,005.1	969.3	35.84	28.047	
8,400.0	7,500.0	7,697.3	7,537.1	26.3	26.1	-88.84	1,644.0	-103.0	940.1	902.8	37.31	25.197	
8,500.0	7,500.0	7,700.3	7,540.1	27.7	26.1	-89.07	1,644.1	-103.0	881.6	842.8	38.82	22.712	
8,600.0	7,500.0	7,703.3	7,543.1	29.1	26.1	-89.31	1,644.2	-103.0	831.1	790.8	40.36	20.595	
8,700.0	7,500.0	7,706.3	7,546.1	30.5	26.1	-89.54	1,644.3	-103.0	790.1	748.2	41.92	18.848	
8,800.0	7,500.0	7,709.4	7,549.1	32.0	26.1	-89.78	1,644.4	-102.9	760.1	716.6	43.50	17.472	
8,900.0	7,500.0	7,712.4	7,552.2	33.5	26.1	-90.01	1,644.5	-102.9	742.4	697.3	45.10	16.459	
8,983.0	7,500.0	7,714.9	7,554.7	34.8	26.1	-90.21	1,644.6	-102.9	737.7	691.3	46.44	15.884 CC	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 132-Geolink 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
9,000.0	7,500.0	7,715.5	7,555.2	35.1	26.1	-90.25	1,644.6	-102.9	737.9	691.2	46.72	15.795 ES	
9,100.0	7,500.0	7,718.5	7,558.3	36.6	26.1	-90.49	1,644.7	-102.9	747.0	698.6	48.35	15.450	
9,200.0	7,500.0	7,721.6	7,561.4	38.2	26.1	-90.73	1,644.8	-102.9	769.0	719.0	49.99	15.383 SF	
9,300.0	7,500.0	7,724.7	7,564.5	39.8	26.1	-90.97	1,644.9	-102.9	802.9	751.3	51.64	15.550	
9,400.0	7,500.0	7,727.8	7,567.6	41.4	26.1	-91.21	1,644.9	-102.9	847.4	794.1	53.29	15.901	
9,500.0	7,500.0	7,730.9	7,570.7	43.0	26.1	-91.45	1,645.0	-102.9	900.7	845.8	54.95	16.391	
9,600.0	7,500.0	7,734.0	7,573.8	44.6	26.1	-91.69	1,645.1	-102.8	961.6	905.0	56.62	16.983	
9,700.0	7,500.0	7,737.2	7,576.9	46.2	26.1	-91.94	1,645.2	-102.8	1,028.6	970.3	58.29	17.644	
9,800.0	7,500.0	7,740.3	7,580.1	47.9	26.1	-92.18	1,645.3	-102.8	1,100.5	1,040.6	59.97	18.351	
9,900.0	7,500.0	7,743.5	7,583.3	49.5	26.1	-92.43	1,645.4	-102.8	1,176.6	1,115.0	61.65	19.085	
10,000.0	7,500.0	7,746.7	7,586.4	51.2	26.1	-92.67	1,645.5	-102.8	1,256.0	1,192.7	63.33	19.832	
10,046.2	7,500.0	7,748.1	7,587.9	51.9	26.1	-92.79	1,645.6	-102.8	1,293.7	1,229.6	64.11	20.179	
10,100.0	7,500.0	7,749.9	7,589.6	52.8	26.1	-92.88	1,645.6	-102.8	1,338.1	1,273.2	64.93	20.607	
10,200.0	7,500.0	7,753.0	7,592.8	54.5	26.2	-93.04	1,645.7	-102.8	1,421.6	1,355.1	66.46	21.391	
10,300.0	7,500.0	7,756.6	7,596.4	56.1	26.2	-93.22	1,645.8	-102.8	1,506.2	1,438.2	67.98	22.156	
10,400.0	7,500.0	7,760.8	7,600.6	57.8	26.2	-93.42	1,646.0	-102.7	1,591.8	1,522.3	69.50	22.902	
10,500.0	7,500.0	7,765.3	7,605.1	59.5	26.2	-93.63	1,646.1	-102.7	1,678.0	1,607.0	71.02	23.627	
10,600.0	7,500.0	7,770.0	7,609.7	61.1	26.2	-93.83	1,646.3	-102.7	1,764.9	1,692.4	72.54	24.331	
10,700.0	7,500.0	7,774.9	7,614.7	62.8	26.2	-94.02	1,646.4	-102.7	1,852.3	1,778.3	74.05	25.014	
10,800.0	7,500.0	7,780.1	7,619.8	64.4	26.2	-94.22	1,646.6	-102.7	1,940.1	1,864.6	75.56	25.676	
10,906.2	7,500.0	7,785.9	7,625.7	66.2	26.2	-94.42	1,646.8	-102.6	2,033.7	1,956.6	77.16	26.358	
11,000.0	7,500.0	7,791.4	7,631.1	67.7	26.2	-94.75	1,647.0	-102.6	2,117.0	2,038.3	78.74	26.885	
11,100.0	7,500.0	7,797.5	7,637.3	69.4	26.2	-95.12	1,647.3	-102.6	2,206.7	2,126.3	80.43	27.436	
11,200.0	7,500.0	7,804.1	7,643.8	71.0	26.2	-95.51	1,647.5	-102.6	2,297.2	2,215.1	82.11	27.977	
11,256.2	7,500.0	7,808.0	7,647.7	72.0	26.2	-95.74	1,647.7	-102.5	2,348.4	2,265.4	83.05	28.277	
11,300.0	7,500.0	7,811.1	7,650.8	72.7	26.2	-96.03	1,647.8	-102.5	2,388.6	2,304.7	83.86	28.483	
11,400.0	7,500.0	7,818.6	7,658.3	74.4	26.2	-96.77	1,648.2	-102.5	2,481.1	2,395.5	85.67	28.962	
11,500.0	7,500.0	7,826.7	7,666.4	76.1	26.2	-97.62	1,648.5	-102.5	2,574.8	2,487.4	87.43	29.451	
11,600.0	7,500.0	7,835.4	7,675.1	77.8	26.2	-98.63	1,648.9	-102.4	2,669.5	2,580.4	89.12	29.956	
11,700.0	7,500.0	7,844.8	7,684.5	79.5	26.2	-99.82	1,649.4	-102.4	2,765.1	2,674.4	90.71	30.483	
11,800.0	7,500.0	7,855.0	7,694.7	81.2	26.2	-101.24	1,649.9	-102.3	2,861.4	2,769.3	92.17	31.044	
11,900.0	7,500.0	7,866.1	7,705.8	82.9	26.3	-102.95	1,650.4	-102.3	2,958.4	2,865.0	93.45	31.656	
12,000.0	7,500.0	7,878.3	7,717.9	84.7	26.3	-105.03	1,651.1	-102.3	3,055.9	2,961.5	94.47	32.349	
12,100.0	7,500.0	7,891.5	7,731.1	86.4	26.3	-107.60	1,651.8	-102.2	3,153.9	3,058.9	95.08	33.171	
12,169.2	7,500.0	7,901.4	7,741.0	87.6	26.3	-109.74	1,652.4	-102.2	3,222.0	3,126.8	95.17	33.855	
12,200.0	7,500.0	7,906.0	7,745.6	88.1	26.3	-110.18	1,652.7	-102.2	3,252.3	3,156.9	95.43	34.082	
12,300.0	7,500.0	7,922.1	7,761.6	89.8	26.3	-111.70	1,653.6	-102.1	3,350.9	3,254.7	96.16	34.845	
12,400.0	7,500.0	7,939.3	7,778.8	91.6	26.3	-113.30	1,654.8	-102.0	3,449.5	3,352.7	96.76	35.650	
12,500.0	7,500.0	7,957.7	7,797.2	93.3	26.3	-114.97	1,656.0	-102.0	3,548.1	3,450.9	97.19	36.505	
12,600.0	7,500.0	7,978.2	7,817.6	95.0	26.4	-116.76	1,657.5	-101.9	3,646.8	3,549.3	97.42	37.434	
12,700.0	7,500.0	8,000.9	7,840.2	96.8	26.4	-118.70	1,659.2	-101.8	3,745.5	3,648.1	97.40	38.454	
12,800.0	7,500.0	8,026.2	7,865.5	98.5	26.4	-120.78	1,661.2	-101.6	3,844.2	3,747.1	97.10	39.591	
12,900.0	7,500.0	8,054.8	7,893.9	100.2	26.4	-123.01	1,663.6	-101.4	3,942.9	3,846.4	96.47	40.873	
13,000.0	7,500.0	8,087.1	7,926.1	102.0	26.4	-125.42	1,666.5	-101.2	4,041.6	3,946.1	95.47	42.336	
13,100.0	7,500.0	8,104.0	7,943.0	103.7	26.5	-126.62	1,668.1	-101.1	4,140.3	4,044.8	95.58	43.319	
13,200.0	7,500.0	8,104.0	7,943.0	105.4	26.5	-126.62	1,668.1	-101.1	4,239.1	4,142.1	96.98	43.712	
13,300.0	7,500.0	8,104.0	7,943.0	107.2	26.5	-126.62	1,668.1	-101.1	4,337.9	4,239.5	98.38	44.094	
13,400.0	7,500.0	8,104.0	7,943.0	108.9	26.5	-126.62	1,668.1	-101.1	4,436.8	4,337.0	99.78	44.466	
13,500.0	7,500.0	8,104.0	7,943.0	110.7	26.5	-126.62	1,668.1	-101.1	4,535.7	4,434.5	101.18	44.827	
13,600.0	7,500.0	8,104.0	7,943.0	112.4	26.5	-126.62	1,668.1	-101.1	4,634.7	4,532.1	102.58	45.180	
13,700.0	7,500.0	8,104.0	7,943.0	114.1	26.5	-126.62	1,668.1	-101.1	4,733.7	4,629.7	103.99	45.523	
13,800.0	7,500.0	8,144.4	7,983.2	115.9	26.5	-129.35	1,671.8	-100.8	4,832.5	4,730.5	101.94	47.404	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 11-7 (EXISTING) - ENCANA WELL - SU		Offset Site Error:		0.0 ft	
Survey Program:												132-Geolink MWD		Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor						
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
13,900.0	7,500.0	8,149.4	7,988.2	117.6	26.5	-129.68	1,672.2	-100.8	4,931.5	4,828.6	102.87	47.939					
14,000.0	7,500.0	8,154.2	7,993.0	119.4	26.5	-129.99	1,672.7	-100.7	5,030.5	4,926.7	103.79	48.467					
14,100.0	7,500.0	8,159.0	7,997.8	121.1	26.5	-130.30	1,673.1	-100.7	5,129.6	5,024.9	104.72	48.986					
14,200.0	7,500.0	8,163.8	8,002.5	122.8	26.5	-130.59	1,673.5	-100.7	5,228.7	5,123.1	105.63	49.499					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO												Offset Site Error:	0.0 ft
Survey Program: 8325-Geolink 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	88.0	88.0	0.0	0.2	-43.19	131.5	-123.4	180.4				
100.0	100.0	188.0	188.0	0.2	0.3	-43.19	131.5	-123.4	180.4	179.9	0.48	375.604	
200.0	200.0	288.0	288.0	0.3	0.5	-43.19	131.5	-123.4	180.4	179.5	0.83	217.493	
300.0	300.0	388.0	388.0	0.5	0.7	-43.19	131.5	-123.4	180.4	179.2	1.18	153.062	
400.0	400.0	488.0	488.0	0.7	0.9	-43.19	131.5	-123.4	180.4	178.8	1.53	118.081	
500.0	500.0	588.0	588.0	0.8	1.0	-43.19	131.5	-123.4	180.4	178.5	1.88	96.114 CC, ES	
600.0	600.0	688.0	688.0	1.0	1.2	-139.76	131.5	-123.4	181.0	178.8	2.23	81.336	
700.0	700.0	788.0	788.0	1.2	1.4	-140.27	131.5	-123.4	183.0	180.4	2.58	71.067	
800.0	799.9	887.9	887.9	1.4	1.5	-141.11	131.5	-123.4	186.4	183.5	2.93	63.687	
900.0	899.7	987.7	987.7	1.6	1.7	-142.23	131.5	-123.4	191.2	187.9	3.28	58.279	
1,000.0	999.4	1,087.4	1,087.4	1.8	1.9	-143.58	131.5	-123.4	197.5	193.8	3.64	54.288	
1,026.5	1,025.7	1,113.7	1,113.7	1.8	1.9	-143.97	131.5	-123.4	199.4	195.6	3.73	53.425	
1,100.0	1,098.9	1,186.9	1,186.9	2.0	2.1	-145.08	131.5	-123.4	204.9	200.9	4.00	51.268	
1,200.0	1,198.5	1,286.5	1,286.5	2.2	2.2	-146.50	131.5	-123.4	212.5	208.1	4.36	48.781	
1,300.0	1,298.1	1,386.1	1,386.1	2.4	2.4	-147.81	131.5	-123.4	220.2	215.5	4.71	46.704	
1,400.0	1,397.7	1,485.7	1,485.7	2.7	2.6	-149.04	131.5	-123.4	228.0	222.9	5.07	44.949	
1,500.0	1,497.3	1,585.3	1,585.3	2.9	2.8	-150.19	131.5	-123.4	235.9	230.5	5.43	43.450	
1,600.0	1,596.8	1,684.8	1,684.8	3.1	2.9	-151.26	131.5	-123.4	244.0	238.2	5.79	42.158	
1,700.0	1,696.4	1,784.4	1,784.4	3.3	3.1	-152.26	131.5	-123.4	252.0	245.9	6.14	41.034	
1,800.0	1,796.0	1,884.0	1,884.0	3.6	3.3	-153.20	131.5	-123.4	260.2	253.7	6.50	40.050	
1,900.0	1,895.6	1,983.6	1,983.6	3.8	3.5	-154.08	131.5	-123.4	268.4	261.6	6.85	39.182	
2,000.0	1,995.2	2,083.2	2,083.2	4.0	3.6	-154.91	131.5	-123.4	276.7	269.5	7.20	38.411	
2,100.0	2,094.7	2,182.7	2,182.7	4.3	3.8	-155.69	131.5	-123.4	285.1	277.5	7.56	37.722	
2,200.0	2,194.3	2,282.3	2,282.3	4.5	4.0	-156.43	131.5	-123.4	293.5	285.6	7.91	37.105	
2,300.0	2,293.9	2,381.9	2,381.9	4.7	4.2	-157.12	131.5	-123.4	301.9	293.6	8.26	36.547	
2,400.0	2,393.5	2,481.5	2,481.5	5.0	4.3	-157.78	131.5	-123.4	310.4	301.8	8.61	36.042	
2,500.0	2,493.0	2,581.0	2,581.0	5.2	4.5	-158.41	131.5	-123.4	318.9	309.9	8.96	35.583	
2,600.0	2,592.6	2,680.6	2,680.6	5.4	4.7	-159.00	131.5	-123.4	327.5	318.1	9.31	35.163	
2,700.0	2,692.2	2,780.2	2,780.2	5.7	4.9	-159.56	131.5	-123.4	336.0	326.4	9.66	34.779	
2,800.0	2,791.8	2,879.8	2,879.8	5.9	5.0	-160.09	131.5	-123.4	344.7	334.6	10.01	34.426	
2,900.0	2,891.4	2,979.4	2,979.4	6.1	5.2	-160.60	131.5	-123.4	353.3	342.9	10.36	34.100	
3,000.0	2,990.9	3,078.9	3,078.9	6.4	5.4	-161.08	131.5	-123.4	362.0	351.3	10.71	33.798	
3,100.0	3,090.5	3,178.5	3,178.5	6.6	5.5	-161.54	131.5	-123.4	370.7	359.6	11.06	33.519	
3,200.0	3,190.1	3,278.1	3,278.1	6.8	5.7	-161.98	131.5	-123.4	379.4	368.0	11.41	33.259	
3,300.0	3,289.7	3,377.7	3,377.7	7.1	5.9	-162.40	131.5	-123.4	388.1	376.4	11.76	33.016	
3,400.0	3,389.2	3,477.2	3,477.2	7.3	6.1	-162.80	131.5	-123.4	396.9	384.8	12.10	32.790	
3,500.0	3,488.8	3,576.8	3,576.8	7.6	6.2	-163.18	131.5	-123.4	405.7	393.2	12.45	32.578	
3,600.0	3,588.4	3,676.4	3,676.4	7.8	6.4	-163.55	131.5	-123.4	414.5	401.7	12.80	32.380	
3,700.0	3,688.0	3,776.0	3,776.0	8.0	6.6	-163.90	131.5	-123.4	423.3	410.1	13.15	32.193	
3,800.0	3,787.6	3,875.6	3,875.6	8.3	6.8	-164.24	131.5	-123.4	432.1	418.6	13.50	32.018	
3,900.0	3,887.1	3,975.1	3,975.1	8.5	6.9	-164.56	131.5	-123.4	440.9	427.1	13.84	31.852	
4,000.0	3,986.7	4,074.7	4,074.7	8.7	7.1	-164.87	131.5	-123.4	449.8	435.6	14.19	31.696	
4,100.0	4,086.3	4,174.3	4,174.3	9.0	7.3	-165.17	131.5	-123.4	458.7	444.1	14.54	31.548	
4,200.0	4,185.9	4,273.9	4,273.9	9.2	7.5	-165.46	131.5	-123.4	467.5	452.6	14.89	31.408	
4,300.0	4,285.4	4,373.4	4,373.4	9.4	7.6	-165.73	131.5	-123.4	476.4	461.2	15.23	31.275	
4,400.0	4,385.0	4,473.0	4,473.0	9.7	7.8	-166.00	131.5	-123.4	485.3	469.7	15.58	31.149	
4,500.0	4,484.6	4,572.6	4,572.6	9.9	8.0	-166.26	131.5	-123.4	494.2	478.3	15.93	31.030	
4,600.0	4,584.2	4,672.2	4,672.2	10.2	8.2	-166.51	131.5	-123.4	503.2	486.9	16.28	30.916	
4,700.0	4,683.8	4,771.8	4,771.8	10.4	8.3	-166.75	131.5	-123.4	512.1	495.5	16.62	30.807	
4,800.0	4,783.3	4,871.3	4,871.3	10.6	8.5	-166.98	131.5	-123.4	521.0	504.1	16.97	30.703	
4,900.0	4,882.9	4,970.9	4,970.9	10.9	8.7	-167.20	131.5	-123.4	530.0	512.7	17.32	30.604	
5,000.0	4,982.5	5,070.5	5,070.5	11.1	8.8	-167.42	131.5	-123.4	538.9	521.3	17.66	30.509	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO												Offset Site Error:	0.0 ft
Survey Program: 8325-Geolink 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	5,082.1	5,170.1	5,170.1	11.3	9.0	-167.63	131.5	-123.4	547.9	529.9	18.01	30.419	
5,200.0	5,181.7	5,269.7	5,269.7	11.6	9.2	-167.83	131.5	-123.4	556.9	538.5	18.36	30.332	
5,300.0	5,281.2	5,369.2	5,369.2	11.8	9.4	-168.02	131.5	-123.4	565.8	547.1	18.71	30.249	
5,400.0	5,380.8	5,468.8	5,468.8	12.0	9.5	-168.21	131.5	-123.4	574.8	555.8	19.05	30.169	
5,500.0	5,480.4	5,568.4	5,568.4	12.3	9.7	-168.40	131.5	-123.4	583.8	564.4	19.40	30.093	
5,600.0	5,580.0	5,668.0	5,668.0	12.5	9.9	-168.58	131.5	-123.4	592.8	573.0	19.75	30.019	
5,700.0	5,679.5	5,767.5	5,767.5	12.8	10.1	-168.75	131.5	-123.4	601.8	581.7	20.09	29.948	
5,800.0	5,779.1	5,867.1	5,867.1	13.0	10.2	-168.92	131.5	-123.4	610.8	590.3	20.44	29.880	
5,900.0	5,878.7	5,966.7	5,966.7	13.2	10.4	-169.08	131.5	-123.4	619.8	599.0	20.79	29.815	
6,000.0	5,978.3	6,066.3	6,066.3	13.5	10.6	-169.24	131.5	-123.4	628.8	607.7	21.14	29.751	
6,100.0	6,077.9	6,165.9	6,165.9	13.7	10.8	-169.39	131.5	-123.4	637.8	616.3	21.48	29.690	
6,200.0	6,177.4	6,265.4	6,265.4	13.9	10.9	-169.54	131.5	-123.4	646.9	625.0	21.83	29.632	
6,300.0	6,277.0	6,365.0	6,365.0	14.2	11.1	-169.69	131.5	-123.4	655.9	633.7	22.18	29.575	
6,400.0	6,376.6	6,464.6	6,464.6	14.4	11.3	-169.83	131.5	-123.4	664.9	642.4	22.52	29.520	
6,500.0	6,476.2	6,564.2	6,564.2	14.7	11.5	-169.97	131.5	-123.4	673.9	651.1	22.87	29.467	
6,600.0	6,575.7	6,663.7	6,663.7	14.9	11.6	-170.10	131.5	-123.4	683.0	659.8	23.22	29.416	
6,700.0	6,675.3	6,763.3	6,763.3	15.1	11.8	-170.23	131.5	-123.4	692.0	668.5	23.57	29.366	
6,800.0	6,774.9	6,862.9	6,862.9	15.4	12.0	-170.36	131.5	-123.4	701.1	677.2	23.91	29.318	
6,900.0	6,874.5	6,962.5	6,962.5	15.6	12.2	-170.48	131.5	-123.4	710.1	685.9	24.26	29.271	
6,949.9	6,924.1	7,012.1	7,012.1	15.7	12.2	-170.54	131.5	-123.4	714.6	690.2	24.43	29.249	
7,000.0	6,974.0	7,062.0	7,062.0	15.8	12.3	-170.68	131.5	-123.4	718.6	694.0	24.64	29.169	
7,050.0	7,023.4	7,111.4	7,111.4	15.9	12.4	-170.80	131.5	-123.4	721.4	696.6	24.83	29.060	
7,100.0	7,072.1	7,160.1	7,160.1	16.0	12.5	-170.92	131.5	-123.4	723.3	698.3	25.01	28.924	
7,150.0	7,119.7	7,207.7	7,207.7	16.2	12.6	-171.00	131.5	-123.4	724.2	699.1	25.18	28.763	
7,200.0	7,165.9	7,253.9	7,253.9	16.3	12.7	-171.07	131.5	-123.4	724.6	699.3	25.35	28.581	
7,250.0	7,210.2	7,298.2	7,298.2	16.4	12.7	-171.15	131.5	-123.4	724.7	699.2	25.53	28.385	
7,300.0	7,252.5	7,340.5	7,340.5	16.5	12.8	-171.23	131.5	-123.4	724.9	699.2	25.72	28.184	
7,350.0	7,292.2	7,380.2	7,380.2	16.7	12.9	-171.31	131.5	-123.4	725.6	699.6	25.92	27.990	
7,400.0	7,329.2	7,417.2	7,417.2	16.8	12.9	-171.37	131.5	-123.4	727.1	701.0	26.14	27.816	
7,450.0	7,363.2	7,451.2	7,451.2	17.0	13.0	-171.45	131.5	-123.4	730.0	703.6	26.38	27.674	
7,500.0	7,393.8	7,481.8	7,481.8	17.3	13.1	-171.55	131.5	-123.4	734.5	707.9	26.64	27.570	
7,550.0	7,421.0	7,509.0	7,509.0	17.5	13.1	-171.63	131.5	-123.4	741.2	714.2	26.95	27.506	
7,600.0	7,444.3	7,532.3	7,532.3	17.8	13.1	-171.72	131.5	-123.4	750.2	722.9	27.30	27.478 SF	
7,650.0	7,463.8	7,551.8	7,551.8	18.2	13.2	-171.81	131.5	-123.4	761.8	734.1	27.72	27.483	
7,700.0	7,479.2	7,567.2	7,567.2	18.5	13.2	-171.90	131.5	-123.4	776.0	747.8	28.19	27.523	
7,750.0	7,490.4	7,578.4	7,578.4	18.9	13.2	-172.00	131.5	-123.4	792.9	764.2	28.72	27.605	
7,800.0	7,497.4	7,585.4	7,585.4	19.3	13.2	-172.10	131.5	-123.4	812.3	783.1	29.27	27.750	
7,850.0	7,500.0	7,588.0	7,588.0	19.8	13.2	-172.20	131.5	-123.4	834.1	804.3	29.80	27.988	
7,855.2	7,500.0	7,588.0	7,588.0	19.9	13.2	-172.25	131.5	-123.4	836.5	806.6	29.85	28.019	
7,900.0	7,500.0	7,588.0	7,588.0	20.3	13.2	-172.30	131.5	-123.4	858.0	827.7	30.37	28.251	
8,000.0	7,500.0	7,588.0	7,588.0	21.3	13.2	-172.40	131.5	-123.4	912.3	880.7	31.60	28.871	
8,100.0	7,500.0	7,588.0	7,588.0	22.5	13.2	-172.50	131.5	-123.4	973.8	940.9	32.91	29.594	
8,200.0	7,500.0	7,588.0	7,588.0	23.7	13.2	-172.60	131.5	-123.4	1,041.3	1,007.1	34.28	30.379	
8,300.0	7,500.0	7,588.0	7,588.0	25.0	13.2	-172.70	131.5	-123.4	1,113.7	1,078.0	35.70	31.194	
8,400.0	7,500.0	7,588.0	7,588.0	26.3	13.2	-172.80	131.5	-123.4	1,190.2	1,153.0	37.17	32.017	
8,500.0	7,500.0	7,588.0	7,588.0	27.7	13.2	-172.90	131.5	-123.4	1,269.8	1,231.2	38.68	32.832	
8,600.0	7,500.0	7,588.0	7,588.0	29.1	13.2	-173.00	131.5	-123.4	1,352.2	1,312.0	40.21	33.627	
8,700.0	7,500.0	7,588.0	7,588.0	30.5	13.2	-173.10	131.5	-123.4	1,436.9	1,395.1	41.77	34.397	
8,800.0	7,500.0	7,588.0	7,588.0	32.0	13.2	-173.20	131.5	-123.4	1,523.4	1,480.0	43.36	35.137	
8,900.0	7,500.0	7,588.0	7,588.0	33.5	13.2	-173.30	131.5	-123.4	1,611.4	1,566.5	44.96	35.845	
9,000.0	7,500.0	7,588.0	7,588.0	35.1	13.2	-173.40	131.5	-123.4	1,700.8	1,654.2	46.57	36.521	
9,100.0	7,500.0	7,588.0	7,588.0	36.6	13.2	-173.50	131.5	-123.4	1,791.3	1,743.1	48.20	37.164	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 12-7 (EXISTING) - ENCANA WELL - NO													Offset Site Error:	0.0 ft
Survey Program: 8325-Geolink 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		
9,200.0	7,500.0	7,588.0	7,588.0	38.2	13.2	-90.00	131.5	-123.4	1,882.8	1,832.9	49.84	37.776		
9,300.0	7,500.0	7,588.0	7,588.0	39.8	13.2	-90.00	131.5	-123.4	1,975.1	1,923.6	51.49	38.358		
9,400.0	7,500.0	7,588.0	7,588.0	41.4	13.2	-90.00	131.5	-123.4	2,068.1	2,014.9	53.15	38.910		
9,500.0	7,500.0	7,588.0	7,588.0	43.0	13.2	-90.00	131.5	-123.4	2,161.7	2,106.9	54.82	39.435		
9,600.0	7,500.0	7,588.0	7,588.0	44.6	13.2	-90.00	131.5	-123.4	2,255.9	2,199.4	56.49	39.933		
9,700.0	7,500.0	7,588.0	7,588.0	46.2	13.2	-90.00	131.5	-123.4	2,350.5	2,292.4	58.17	40.407		
9,800.0	7,500.0	7,588.0	7,588.0	47.9	13.2	-90.00	131.5	-123.4	2,445.6	2,385.8	59.86	40.858		
9,900.0	7,500.0	7,588.0	7,588.0	49.5	13.2	-90.00	131.5	-123.4	2,541.1	2,479.5	61.55	41.287		
10,000.0	7,500.0	7,588.0	7,588.0	51.2	13.2	-90.00	131.5	-123.4	2,636.9	2,573.6	63.24	41.695		
10,046.2	7,500.0	7,588.0	7,588.0	51.9	13.2	-90.00	131.5	-123.4	2,681.2	2,617.2	64.03	41.877		
10,100.0	7,500.0	7,588.0	7,588.0	52.8	13.2	-90.00	131.5	-123.4	2,732.9	2,668.1	64.84	42.147		
10,200.0	7,500.0	7,588.0	7,588.0	54.5	13.2	-90.00	131.5	-123.4	2,828.8	2,762.5	66.35	42.634		
10,300.0	7,500.0	7,588.0	7,588.0	56.1	13.2	-90.00	131.5	-123.4	2,924.5	2,856.6	67.85	43.103		
10,400.0	7,500.0	7,588.0	7,588.0	57.8	13.2	-90.00	131.5	-123.4	3,019.9	2,950.6	69.33	43.557		
10,500.0	7,500.0	7,588.0	7,588.0	59.5	13.2	-90.00	131.5	-123.4	3,115.2	3,044.4	70.81	43.996		
10,600.0	7,500.0	7,588.0	7,588.0	61.1	13.2	-90.00	131.5	-123.4	3,210.2	3,137.9	72.27	44.422		
10,700.0	7,500.0	7,588.0	7,588.0	62.8	13.2	-90.00	131.5	-123.4	3,304.9	3,231.2	73.71	44.836		
10,800.0	7,500.0	7,588.0	7,588.0	64.4	13.2	-90.00	131.5	-123.4	3,399.4	3,324.3	75.14	45.240		
10,906.2	7,500.0	7,588.0	7,588.0	66.2	13.2	-90.00	131.5	-123.4	3,499.5	3,422.8	76.65	45.658		
11,000.0	7,500.0	7,588.0	7,588.0	67.7	13.2	-90.00	131.5	-123.4	3,587.9	3,509.6	78.26	45.844		
11,100.0	7,500.0	7,588.0	7,588.0	69.4	13.2	-90.00	131.5	-123.4	3,682.5	3,602.5	79.99	46.036		
11,200.0	7,500.0	7,588.0	7,588.0	71.0	13.2	-90.00	131.5	-123.4	3,777.3	3,695.6	81.72	46.222		
11,256.2	7,500.0	7,588.0	7,588.0	72.0	13.2	-90.00	131.5	-123.4	3,830.7	3,748.0	82.69	46.324		
11,300.0	7,500.0	7,588.0	7,588.0	72.7	13.2	-90.00	131.5	-123.4	3,872.4	3,788.8	83.59	46.326		
11,400.0	7,500.0	7,588.0	7,588.0	74.4	13.2	-90.00	131.5	-123.4	3,968.2	3,882.6	85.62	46.346		
11,500.0	7,500.0	7,588.0	7,588.0	76.1	13.2	-90.00	131.5	-123.4	4,064.7	3,977.1	87.63	46.383		
11,600.0	7,500.0	7,588.0	7,588.0	77.8	13.2	-90.00	131.5	-123.4	4,161.8	4,072.2	89.63	46.435		
11,700.0	7,500.0	7,588.0	7,588.0	79.5	13.2	-90.00	131.5	-123.4	4,259.4	4,167.8	91.60	46.501		
11,800.0	7,500.0	7,588.0	7,588.0	81.2	13.2	-90.00	131.5	-123.4	4,357.4	4,263.9	93.55	46.580		
11,900.0	7,500.0	7,588.0	7,588.0	82.9	13.2	-90.00	131.5	-123.4	4,455.9	4,360.4	95.47	46.671		
12,000.0	7,500.0	7,588.0	7,588.0	84.7	13.2	-90.00	131.5	-123.4	4,554.7	4,457.3	97.38	46.774		
12,100.0	7,500.0	7,588.0	7,588.0	86.4	13.2	-90.00	131.5	-123.4	4,653.8	4,554.5	99.26	46.887		
12,169.2	7,500.0	7,588.0	7,588.0	87.6	13.2	-90.00	131.5	-123.4	4,722.5	4,622.0	100.54	46.970		
12,200.0	7,500.0	7,588.0	7,588.0	88.1	13.2	-90.00	131.5	-123.4	4,753.1	4,652.1	101.08	47.024		
12,300.0	7,500.0	7,588.0	7,588.0	89.8	13.2	-90.00	131.5	-123.4	4,852.6	4,749.8	102.81	47.197		
12,400.0	7,500.0	7,588.0	7,588.0	91.6	13.2	-90.00	131.5	-123.4	4,952.0	4,847.5	104.55	47.364		
12,500.0	7,500.0	7,588.0	7,588.0	93.3	13.2	-90.00	131.5	-123.4	5,051.5	4,945.2	106.29	47.526		
12,600.0	7,500.0	7,588.0	7,588.0	95.0	13.2	-90.00	131.5	-123.4	5,151.0	5,042.9	108.03	47.682		
12,700.0	7,500.0	7,588.0	7,588.0	96.8	13.2	-90.00	131.5	-123.4	5,250.5	5,140.7	109.77	47.834		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GY													Offset Site Error:	0.0 ft
Survey Program: 100-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	44.6	44.6	0.0	0.1	37.20	1,576.6	1,196.5	1,979.2					
100.0	100.0	142.6	142.6	0.2	0.3	37.23	1,576.3	1,197.6	1,979.6	1,979.2	0.40	4,938.011		
200.0	200.0	247.9	247.8	0.3	0.4	37.28	1,575.3	1,199.1	1,979.7	1,979.0	0.76	2,608.323		
300.0	300.0	349.6	349.6	0.5	0.6	37.31	1,574.7	1,199.9	1,979.8	1,978.7	1.11	1,781.781		
400.0	400.0	454.4	454.4	0.7	0.8	37.32	1,574.4	1,200.2	1,979.6	1,978.2	1.47	1,348.045		
500.0	500.0	556.5	556.5	0.8	1.0	37.32	1,574.1	1,199.9	1,979.3	1,977.4	1.82	1,086.713		
600.0	600.0	666.3	666.3	1.0	1.2	-59.12	1,573.8	1,199.3	1,978.3	1,976.1	2.19	903.477		
700.0	700.0	778.0	777.9	1.2	1.4	-59.22	1,572.9	1,198.3	1,975.8	1,973.2	2.56	771.552		
800.0	799.9	881.9	881.8	1.4	1.5	-59.36	1,571.3	1,197.6	1,971.9	1,969.0	2.92	674.613		
900.0	899.7	984.7	984.6	1.6	1.7	-59.54	1,569.5	1,197.0	1,967.1	1,963.8	3.29	597.976		
1,000.0	999.4	1,086.3	1,086.2	1.8	1.9	-59.78	1,567.9	1,195.9	1,961.2	1,957.6	3.66	535.406		
1,026.5	1,025.7	1,113.9	1,113.8	1.8	2.0	-59.86	1,567.5	1,195.6	1,959.5	1,955.7	3.76	520.540		
1,100.0	1,098.9	1,192.9	1,192.8	2.0	2.1	-60.06	1,566.4	1,194.3	1,954.5	1,950.5	4.05	482.373		
1,200.0	1,198.5	1,291.5	1,291.4	2.2	2.3	-60.32	1,565.2	1,192.1	1,947.7	1,943.2	4.43	439.518		
1,300.0	1,298.1	1,392.0	1,391.8	2.4	2.4	-60.60	1,564.2	1,189.7	1,940.9	1,936.0	4.82	402.874		
1,400.0	1,397.7	1,487.1	1,486.9	2.7	2.6	-60.88	1,563.6	1,186.9	1,934.2	1,929.0	5.20	372.130		
1,500.0	1,497.3	1,582.0	1,581.7	2.9	2.8	-61.17	1,563.2	1,184.2	1,927.7	1,922.2	5.58	345.512		
1,600.0	1,596.8	1,685.2	1,684.9	3.1	3.0	-61.47	1,562.7	1,181.5	1,921.4	1,915.4	5.98	321.406		
1,700.0	1,696.4	1,777.3	1,777.0	3.3	3.1	-61.75	1,562.5	1,178.8	1,915.1	1,908.8	6.36	301.140		
1,800.0	1,796.0	1,875.3	1,874.9	3.6	3.3	-62.06	1,562.6	1,176.0	1,909.3	1,902.5	6.75	282.730		
1,900.0	1,895.6	1,966.1	1,965.7	3.8	3.5	-62.33	1,562.5	1,173.9	1,903.6	1,896.4	7.13	266.818		
2,000.0	1,995.2	2,055.9	2,055.5	4.0	3.6	-62.60	1,562.7	1,172.3	1,898.5	1,891.0	7.52	252.619		
2,100.0	2,094.7	2,153.7	2,153.2	4.3	3.8	-62.89	1,563.1	1,170.7	1,893.8	1,885.9	7.91	239.395		
2,200.0	2,194.3	2,254.0	2,253.6	4.5	4.0	-63.17	1,563.2	1,169.6	1,889.0	1,880.7	8.31	227.295		
2,300.0	2,293.9	2,354.3	2,353.9	4.7	4.1	-63.44	1,563.1	1,168.7	1,884.4	1,875.7	8.71	216.303		
2,400.0	2,393.5	2,448.4	2,447.9	5.0	4.3	-63.70	1,563.2	1,167.8	1,879.7	1,870.6	9.10	206.501		
2,500.0	2,493.0	2,535.5	2,535.0	5.2	4.5	-63.96	1,563.9	1,166.7	1,875.7	1,866.2	9.48	197.794		
2,600.0	2,592.6	2,627.7	2,627.2	5.4	4.6	-64.25	1,565.5	1,165.3	1,872.4	1,862.5	9.87	189.619		
2,700.0	2,692.2	2,735.6	2,735.1	5.7	4.8	-64.61	1,567.5	1,163.3	1,869.0	1,858.7	10.30	181.532		
2,800.0	2,791.8	2,840.5	2,839.9	5.9	5.0	-64.96	1,569.0	1,161.0	1,865.1	1,854.4	10.71	174.124		
2,900.0	2,891.4	2,936.2	2,935.6	6.1	5.2	-65.26	1,570.2	1,159.4	1,861.4	1,850.3	11.11	167.535		
3,000.0	2,990.9	3,029.1	3,028.5	6.4	5.3	-65.55	1,571.3	1,158.3	1,858.0	1,846.5	11.50	161.508		
3,100.0	3,090.5	3,125.8	3,125.2	6.6	5.5	-65.84	1,572.6	1,157.6	1,855.0	1,843.1	11.90	155.817		
3,200.0	3,190.1	3,238.5	3,237.9	6.8	5.7	-66.17	1,573.7	1,156.8	1,851.7	1,839.4	12.33	150.130		
3,300.0	3,289.7	3,353.3	3,352.7	7.1	5.9	-66.50	1,573.7	1,155.7	1,847.6	1,834.8	12.77	144.710		
3,400.0	3,389.2	3,464.6	3,464.0	7.3	6.1	-66.82	1,573.2	1,154.4	1,842.9	1,829.7	13.19	139.671		
3,500.0	3,488.8	3,573.2	3,572.6	7.6	6.3	-67.12	1,571.9	1,152.9	1,837.6	1,824.0	13.62	134.949		
3,600.0	3,588.4	3,692.1	3,691.5	7.8	6.5	-67.45	1,569.6	1,151.3	1,831.7	1,817.7	14.06	130.307		
3,700.0	3,688.0	3,778.5	3,777.8	8.0	6.6	-67.66	1,567.4	1,150.5	1,825.5	1,811.1	14.44	126.440		
3,800.0	3,787.6	3,880.1	3,879.4	8.3	6.8	-67.91	1,565.1	1,150.1	1,819.9	1,805.0	14.85	122.579		
3,900.0	3,887.1	3,993.3	3,992.5	8.5	7.0	-68.21	1,562.3	1,148.8	1,813.7	1,798.4	15.28	118.714		
4,000.0	3,986.7	4,091.9	4,091.1	8.7	7.2	-68.47	1,559.6	1,147.5	1,807.2	1,791.5	15.68	115.239		
4,100.0	4,086.3	4,196.0	4,195.2	9.0	7.4	-68.74	1,556.3	1,146.5	1,800.7	1,784.6	16.10	111.860		
4,200.0	4,185.9	4,289.0	4,288.1	9.2	7.6	-68.99	1,553.7	1,145.1	1,794.2	1,777.7	16.49	108.778		
4,300.0	4,285.4	4,373.6	4,372.6	9.4	7.7	-69.23	1,551.9	1,143.9	1,788.3	1,771.4	16.88	105.967		
4,400.0	4,385.0	4,459.8	4,458.8	9.7	7.9	-69.48	1,550.8	1,142.8	1,783.3	1,766.0	17.26	103.309		
4,500.0	4,484.6	4,551.7	4,550.7	9.9	8.0	-69.76	1,550.1	1,141.8	1,779.0	1,761.3	17.66	100.744		
4,600.0	4,584.2	4,653.4	4,652.4	10.2	8.2	-70.06	1,549.5	1,140.9	1,774.9	1,756.8	18.07	98.204		
4,700.0	4,683.8	4,753.3	4,752.3	10.4	8.4	-70.36	1,548.8	1,139.7	1,770.6	1,752.1	18.49	95.782		
4,800.0	4,783.3	4,851.2	4,850.2	10.6	8.5	-70.65	1,548.2	1,138.8	1,766.5	1,747.6	18.89	93.493		
4,900.0	4,882.9	4,950.8	4,949.8	10.9	8.7	-70.96	1,547.6	1,137.5	1,762.4	1,743.1	19.31	91.283		
5,000.0	4,982.5	5,043.4	5,042.3	11.1	8.9	-71.26	1,547.3	1,136.1	1,758.5	1,738.8	19.71	89.229		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GY												Offset Site Error:	0.0 ft
Survey Program: 100-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	
5,100.0	5,082.1	5,135.5	5,134.5	11.3	9.0	-71.56	1,547.6	1,135.0	1,755.3	1,735.2	20.11	87.291	
5,200.0	5,181.7	5,235.2	5,234.2	11.6	9.2	-71.87	1,547.8	1,134.0	1,752.2	1,731.6	20.52	85.379	
5,300.0	5,281.2	5,328.7	5,327.7	11.8	9.4	-72.18	1,548.2	1,132.9	1,749.2	1,728.3	20.93	83.590	
5,400.0	5,380.8	5,418.4	5,417.3	12.0	9.5	-72.48	1,549.2	1,131.9	1,746.9	1,725.6	21.32	81.925	
5,500.0	5,480.4	5,523.0	5,521.9	12.3	9.7	-72.84	1,550.3	1,130.6	1,744.7	1,722.9	21.75	80.219	
5,600.0	5,580.0	5,618.7	5,617.6	12.5	9.9	-73.17	1,551.5	1,129.2	1,742.6	1,720.4	22.16	78.640	
5,700.0	5,679.5	5,722.6	5,721.5	12.8	10.1	-73.53	1,552.6	1,127.7	1,740.4	1,717.8	22.58	77.062	
5,800.0	5,779.1	5,815.1	5,814.0	13.0	10.2	-73.85	1,553.8	1,126.5	1,738.5	1,715.5	22.99	75.622	
5,900.0	5,878.7	5,912.8	5,911.7	13.2	10.4	-74.19	1,555.3	1,125.1	1,736.8	1,713.4	23.40	74.210	
6,000.0	5,978.3	6,003.6	6,002.4	13.5	10.6	-74.52	1,556.9	1,123.9	1,735.5	1,711.7	23.81	72.903	
6,100.0	6,077.9	6,103.1	6,101.9	13.7	10.7	-74.86	1,558.8	1,123.0	1,734.5	1,710.3	24.22	71.608	
6,200.0	6,177.4	6,202.5	6,201.3	13.9	10.9	-75.19	1,560.6	1,122.4	1,733.6	1,708.9	24.64	70.359	
6,300.0	6,277.0	6,307.1	6,305.9	14.2	11.1	-75.54	1,562.4	1,121.5	1,732.5	1,707.4	25.07	69.118	
6,400.0	6,376.6	6,400.0	6,398.8	14.4	11.3	-75.86	1,564.0	1,120.7	1,731.6	1,706.1	25.47	67.983	
6,500.0	6,476.2	6,506.9	6,505.6	14.7	11.4	-76.24	1,566.0	1,119.5	1,730.7	1,704.8	25.90	66.813	
6,600.0	6,575.7	6,600.0	6,598.7	14.9	11.6	-76.57	1,567.6	1,118.3	1,729.8	1,703.4	26.31	65.743	
6,691.9	6,667.3	6,681.5	6,680.2	15.1	11.7	-76.86	1,569.4	1,117.4	1,729.4	1,702.7	26.68	64.823	
6,700.0	6,675.3	6,688.3	6,687.0	15.1	11.8	-76.88	1,569.5	1,117.3	1,729.4	1,702.6	26.71	64.747	
6,800.0	6,774.9	6,775.5	6,774.1	15.4	11.9	-77.19	1,572.2	1,116.5	1,729.8	1,702.7	27.11	63.818	
6,900.0	6,874.5	6,866.4	6,865.0	15.6	12.1	-77.50	1,575.3	1,116.3	1,731.0	1,703.5	27.51	62.929	
6,949.9	6,924.1	6,912.0	6,910.6	15.7	12.1	-77.65	1,576.9	1,116.4	1,731.7	1,704.0	27.71	62.502	
7,000.0	6,974.0	6,956.9	6,955.4	15.8	12.2	-31.52	1,578.5	1,116.8	1,730.6	1,702.8	27.80	62.251	
7,050.0	7,023.4	7,000.0	6,998.5	15.9	12.3	-10.97	1,580.2	1,117.3	1,725.4	1,697.7	27.73	62.231	
7,100.0	7,072.1	7,043.3	7,041.7	16.0	12.4	-1.75	1,582.0	1,118.0	1,716.3	1,688.8	27.49	62.436	
7,150.0	7,119.7	7,084.4	7,082.8	16.2	12.4	3.45	1,583.9	1,118.7	1,703.4	1,676.3	27.09	62.874	
7,200.0	7,165.9	7,122.5	7,120.9	16.3	12.5	6.98	1,585.7	1,119.4	1,686.8	1,660.2	26.54	63.550	
7,250.0	7,210.2	7,158.3	7,156.6	16.4	12.6	9.75	1,587.7	1,120.2	1,666.6	1,640.7	25.85	64.460	
7,300.0	7,252.5	7,200.0	7,198.2	16.5	12.6	12.24	1,590.2	1,121.2	1,643.0	1,617.9	25.06	65.559	
7,350.0	7,292.2	7,226.8	7,224.9	16.7	12.7	14.60	1,592.0	1,121.9	1,616.1	1,592.0	24.16	66.888	
7,400.0	7,329.2	7,259.3	7,257.3	16.8	12.7	17.13	1,594.1	1,123.0	1,586.2	1,562.9	23.23	68.281	
7,450.0	7,363.2	7,289.6	7,287.5	17.0	12.8	19.96	1,596.3	1,124.1	1,553.3	1,531.0	22.32	69.591	
7,500.0	7,393.8	7,327.9	7,325.7	17.3	12.9	23.44	1,599.0	1,125.6	1,517.8	1,496.2	21.56	70.408	
7,550.0	7,421.0	7,367.3	7,365.0	17.5	12.9	27.80	1,601.5	1,127.2	1,479.6	1,458.5	21.09	70.142	
7,600.0	7,444.3	7,401.3	7,398.9	17.8	13.0	33.23	1,603.5	1,128.5	1,439.1	1,417.9	21.14	68.087	
7,650.0	7,463.8	7,428.8	7,426.3	18.2	13.0	39.98	1,604.9	1,129.7	1,396.7	1,374.8	21.89	63.793	
7,700.0	7,479.2	7,450.8	7,448.4	18.5	13.1	48.34	1,606.0	1,130.6	1,352.9	1,329.5	23.47	57.657	
7,750.0	7,490.4	7,467.4	7,464.9	18.9	13.1	58.34	1,606.7	1,131.3	1,308.1	1,282.5	25.64	51.025	
7,800.0	7,497.4	7,478.5	7,476.0	19.3	13.1	69.58	1,607.2	1,131.7	1,262.7	1,234.9	27.85	45.340	
7,850.0	7,500.0	7,484.2	7,481.7	19.8	13.1	81.15	1,607.4	1,132.0	1,217.1	1,187.7	29.45	41.328	
7,855.2	7,500.0	7,484.5	7,482.0	19.9	13.1	82.33	1,607.5	1,132.0	1,212.4	1,182.9	29.56	41.010	
7,900.0	7,500.0	7,486.7	7,484.2	20.3	13.1	82.58	1,607.5	1,132.1	1,171.8	1,141.7	30.09	38.942	
8,000.0	7,500.0	7,491.5	7,488.9	21.3	13.1	83.12	1,607.7	1,132.3	1,082.2	1,050.9	31.33	34.540	
8,100.0	7,500.0	7,496.1	7,493.5	22.5	13.1	83.65	1,607.9	1,132.5	994.7	962.0	32.66	30.460	
8,200.0	7,500.0	7,500.6	7,498.0	23.7	13.1	84.15	1,608.1	1,132.7	909.7	875.7	34.04	26.721	
8,300.0	7,500.0	7,505.0	7,502.4	25.0	13.2	84.66	1,608.3	1,132.9	828.0	792.6	35.49	23.333	
8,400.0	7,500.0	7,509.3	7,506.7	26.3	13.2	85.16	1,608.4	1,133.1	750.8	713.8	36.97	20.306	
8,500.0	7,500.0	7,513.5	7,510.9	27.7	13.2	85.63	1,608.6	1,133.3	679.5	641.0	38.50	17.651	
8,600.0	7,500.0	7,517.6	7,515.0	29.1	13.2	86.10	1,608.7	1,133.4	616.2	576.2	40.05	15.387	
8,700.0	7,500.0	7,521.5	7,518.9	30.5	13.2	86.55	1,608.9	1,133.6	563.7	522.0	41.63	13.541	
8,800.0	7,500.0	7,525.3	7,522.7	32.0	13.2	86.98	1,609.0	1,133.8	525.0	481.8	43.22	12.147	
8,900.0	7,500.0	7,529.0	7,526.4	33.5	13.2	87.41	1,609.1	1,133.9	503.6	458.7	44.84	11.230	
8,960.6	7,500.0	7,531.2	7,528.6	34.4	13.2	87.66	1,609.2	1,134.0	499.9	454.1	45.83	10.909 CC, ES	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GY												Offset Site Error:	0.0 ft
Survey Program: 100-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	
9,000.0	7,500.0	7,532.6	7,530.0	35.1	13.2	87.82	1,609.2	1,134.1	501.5	455.0	46.47	10.792	
9,100.0	7,500.0	7,536.1	7,533.4	36.6	13.2	88.22	1,609.4	1,134.2	519.0	470.9	48.11	10.787 SF	
9,200.0	7,500.0	7,539.4	7,536.8	38.2	13.2	88.60	1,609.5	1,134.3	554.2	504.5	49.76	11.138	
9,300.0	7,500.0	7,542.7	7,540.1	39.8	13.2	88.98	1,609.6	1,134.5	604.1	552.7	51.42	11.749	
9,400.0	7,500.0	7,546.0	7,543.3	41.4	13.2	89.35	1,609.7	1,134.6	665.4	612.3	53.09	12.534	
9,500.0	7,500.0	7,549.1	7,546.4	43.0	13.2	89.71	1,609.8	1,134.7	735.2	680.5	54.76	13.426	
9,600.0	7,500.0	7,552.1	7,549.5	44.6	13.2	90.05	1,609.9	1,134.8	811.4	754.9	56.44	14.376	
9,700.0	7,500.0	7,555.1	7,552.4	46.2	13.2	90.39	1,610.0	1,135.0	892.2	834.1	58.12	15.350	
9,800.0	7,500.0	7,557.9	7,555.3	47.9	13.2	90.72	1,610.1	1,135.1	976.6	916.8	59.81	16.328	
9,900.0	7,500.0	7,560.7	7,558.1	49.5	13.3	91.04	1,610.1	1,135.2	1,063.7	1,002.2	61.50	17.296	
10,000.0	7,500.0	7,563.5	7,560.8	51.2	13.3	91.35	1,610.2	1,135.3	1,152.9	1,089.7	63.19	18.244	
10,046.2	7,500.0	7,564.7	7,562.1	51.9	13.3	91.49	1,610.3	1,135.3	1,194.7	1,130.7	63.98	18.674	
10,100.0	7,500.0	7,566.1	7,563.5	52.8	13.3	91.69	1,610.3	1,135.4	1,243.8	1,179.0	64.79	19.198	
10,200.0	7,500.0	7,568.7	7,566.0	54.5	13.3	92.07	1,610.4	1,135.5	1,336.6	1,270.3	66.29	20.164	
10,300.0	7,500.0	7,571.1	7,568.4	56.1	13.3	92.49	1,610.4	1,135.6	1,430.9	1,363.2	67.77	21.114	
10,400.0	7,500.0	7,573.4	7,570.7	57.8	13.3	92.94	1,610.5	1,135.7	1,526.5	1,457.3	69.24	22.048	
10,500.0	7,500.0	7,575.6	7,572.9	59.5	13.3	93.46	1,610.6	1,135.8	1,623.0	1,552.4	70.68	22.964	
10,600.0	7,500.0	7,577.7	7,575.0	61.1	13.3	94.05	1,610.6	1,135.8	1,720.4	1,648.3	72.09	23.864	
10,700.0	7,500.0	7,579.7	7,577.0	62.8	13.3	94.74	1,610.7	1,135.9	1,818.4	1,744.9	73.47	24.748	
10,800.0	7,500.0	7,581.5	7,578.9	64.4	13.3	95.58	1,610.7	1,136.0	1,916.8	1,842.0	74.81	25.622	
10,906.2	7,500.0	7,583.4	7,580.7	66.2	13.3	96.72	1,610.8	1,136.0	2,021.9	1,945.7	76.16	26.546	
11,000.0	7,500.0	7,585.0	7,582.4	67.7	13.3	97.06	1,610.8	1,136.1	2,114.9	2,037.2	77.72	27.210	
11,100.0	7,500.0	7,586.7	7,584.0	69.4	13.3	97.41	1,610.9	1,136.2	2,214.1	2,134.7	79.39	27.890	
11,200.0	7,500.0	7,588.4	7,585.7	71.0	13.3	97.75	1,610.9	1,136.2	2,313.4	2,232.3	81.05	28.544	
11,256.2	7,500.0	7,600.0	7,597.3	72.0	13.3	100.14	1,611.2	1,136.7	2,369.2	2,287.7	81.54	29.055	
11,300.0	7,500.0	7,600.0	7,597.3	72.7	13.3	99.51	1,611.2	1,136.7	2,412.7	2,330.1	82.57	29.221	
11,400.0	7,500.0	7,600.0	7,597.3	74.4	13.3	98.31	1,611.2	1,136.7	2,511.9	2,427.1	84.83	29.611	
11,500.0	7,500.0	7,600.0	7,597.3	76.1	13.3	97.34	1,611.2	1,136.7	2,610.9	2,523.9	87.01	30.008	
11,600.0	7,500.0	7,600.0	7,597.3	77.8	13.3	96.54	1,611.2	1,136.7	2,709.8	2,620.7	89.12	30.405	
11,700.0	7,500.0	7,600.0	7,597.3	79.5	13.3	95.89	1,611.2	1,136.7	2,808.5	2,717.3	91.19	30.799	
11,800.0	7,500.0	7,600.0	7,597.3	81.2	13.3	95.33	1,611.2	1,136.7	2,906.9	2,813.7	93.21	31.188	
11,900.0	7,500.0	7,600.1	7,597.4	82.9	13.3	94.86	1,611.2	1,136.7	3,005.2	2,910.0	95.19	31.571	
12,000.0	7,500.0	7,602.6	7,599.9	84.7	13.3	94.69	1,611.3	1,136.8	3,103.3	3,006.2	97.12	31.955	
12,100.0	7,500.0	7,605.2	7,602.5	86.4	13.3	94.53	1,611.3	1,136.8	3,201.2	3,102.1	99.01	32.330	
12,169.2	7,500.0	7,607.0	7,604.3	87.6	13.3	94.44	1,611.4	1,136.9	3,268.7	3,168.4	100.31	32.585	
12,200.0	7,500.0	7,607.9	7,605.2	88.1	13.3	94.50	1,611.4	1,136.9	3,298.8	3,198.0	100.84	32.713	
12,300.0	7,500.0	7,610.6	7,607.9	89.8	13.3	94.72	1,611.5	1,137.0	3,396.5	3,293.9	102.55	33.122	
12,400.0	7,500.0	7,613.3	7,610.6	91.6	13.3	94.93	1,611.5	1,137.1	3,494.3	3,390.1	104.25	33.518	
12,500.0	7,500.0	7,616.0	7,613.3	93.3	13.3	95.15	1,611.6	1,137.2	3,592.2	3,486.3	105.95	33.904	
12,600.0	7,500.0	7,618.7	7,616.0	95.0	13.3	95.36	1,611.7	1,137.3	3,690.3	3,582.6	107.66	34.278	
12,700.0	7,500.0	7,621.4	7,618.7	96.8	13.4	95.58	1,611.7	1,137.4	3,788.4	3,679.1	109.36	34.643	
12,800.0	7,500.0	7,624.1	7,621.4	98.5	13.4	95.79	1,611.8	1,137.5	3,886.7	3,775.6	111.05	34.998	
12,900.0	7,500.0	7,626.8	7,624.1	100.2	13.4	96.01	1,611.9	1,137.6	3,985.0	3,872.3	112.75	35.344	
13,000.0	7,500.0	7,629.6	7,626.8	102.0	13.4	96.22	1,611.9	1,137.7	4,083.4	3,969.0	114.44	35.681	
13,100.0	7,500.0	7,632.3	7,629.6	103.7	13.4	96.44	1,612.0	1,137.8	4,181.9	4,065.8	116.13	36.010	
13,200.0	7,500.0	7,635.0	7,632.3	105.4	13.4	96.65	1,612.1	1,137.9	4,280.4	4,162.6	117.82	36.330	
13,300.0	7,500.0	7,637.8	7,635.0	107.2	13.4	96.87	1,612.1	1,138.0	4,379.0	4,259.5	119.50	36.643	
13,400.0	7,500.0	7,640.5	7,637.8	108.9	13.4	97.09	1,612.2	1,138.1	4,477.7	4,356.5	121.19	36.949	
13,500.0	7,500.0	7,643.2	7,640.5	110.7	13.4	97.30	1,612.3	1,138.2	4,576.4	4,453.6	122.87	37.247	
13,600.0	7,500.0	7,646.0	7,643.2	112.4	13.4	97.52	1,612.3	1,138.3	4,675.2	4,550.7	124.54	37.539	
13,700.0	7,500.0	7,648.7	7,646.0	114.1	13.4	97.73	1,612.4	1,138.4	4,774.1	4,647.8	126.22	37.824	
13,800.0	7,500.0	7,651.5	7,648.8	115.9	13.4	97.95	1,612.5	1,138.4	4,872.9	4,745.0	127.89	38.103	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design											S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 21-7 (EXISTING) - ENCANA WELL - GY			Offset Site Error:		0.0 ft	
Survey Program:		100-MWD											Offset Well Error:		0.0 ft		
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty	Separation Factor						
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis						
13,900.0	7,500.0	7,654.3	7,651.5	117.6	13.4	98.17	1,612.6	1,138.5	4,971.9	4,842.3	129.56	38.376					
14,000.0	7,500.0	7,657.0	7,654.3	119.4	13.4	98.38	1,612.6	1,138.6	5,070.8	4,939.6	131.22	38.644					
14,100.0	7,500.0	7,659.8	7,657.1	121.1	13.4	98.60	1,612.7	1,138.7	5,169.8	5,036.9	132.88	38.906					
14,200.0	7,500.0	7,662.6	7,659.8	122.8	13.4	98.81	1,612.8	1,138.8	5,268.8	5,134.3	134.54	39.163					



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SU											Offset Site Error: 0.0 ft		
Survey Program: 71-Geolink 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	52.3	52.3	0.0	0.1	35.57	1,594.4	1,140.2	1,960.2				
100.0	100.0	151.1	151.1	0.2	0.3	35.57	1,594.4	1,140.2	1,960.2	1,959.8	0.42	4,716.540	
200.0	200.0	246.1	246.1	0.3	0.4	35.56	1,594.8	1,140.0	1,960.3	1,959.6	0.76	2,593.187	
300.0	300.0	381.8	381.8	0.5	0.7	35.52	1,595.1	1,138.8	1,960.1	1,958.9	1.17	1,678.485	
400.0	400.0	528.6	528.4	0.7	0.9	35.64	1,589.1	1,139.5	1,957.0	1,955.4	1.61	1,218.388	
500.0	500.0	811.0	807.6	0.8	1.7	36.61	1,549.2	1,150.8	1,946.7	1,944.3	2.43	800.607	
600.0	600.0	902.0	896.6	1.0	2.0	-59.49	1,531.1	1,155.4	1,933.3	1,930.4	2.89	668.118	
700.0	700.0	1,136.9	1,125.2	1.2	3.0	-58.59	1,478.2	1,165.3	1,917.1	1,913.3	3.84	499.052	
800.0	799.9	1,297.2	1,278.3	1.4	3.9	-57.94	1,431.0	1,170.7	1,893.3	1,888.6	4.65	406.922	
900.0	899.7	1,400.1	1,375.8	1.6	4.5	-57.59	1,398.4	1,174.5	1,867.3	1,862.0	5.27	354.042	
1,000.0	999.4	1,503.2	1,473.2	1.8	5.1	-57.24	1,364.8	1,179.2	1,840.4	1,834.5	5.93	310.431	
1,026.5	1,025.7	1,526.6	1,495.3	1.8	5.2	-57.17	1,357.0	1,180.3	1,833.1	1,827.0	6.09	301.215	
1,100.0	1,098.9	1,584.7	1,550.1	2.0	5.5	-56.84	1,338.1	1,183.0	1,813.0	1,806.5	6.50	278.890	
1,200.0	1,198.5	1,666.0	1,627.0	2.2	6.0	-56.38	1,312.1	1,187.2	1,786.5	1,779.4	7.09	251.865	
1,300.0	1,298.1	1,770.2	1,725.4	2.4	6.6	-55.74	1,278.3	1,193.5	1,760.4	1,752.6	7.82	225.164	
1,400.0	1,397.7	1,852.6	1,803.0	2.7	7.1	-55.20	1,251.3	1,198.8	1,734.4	1,725.9	8.45	205.196	
1,500.0	1,497.3	1,974.7	1,918.3	2.9	7.8	-54.43	1,211.5	1,205.0	1,707.9	1,698.6	9.26	184.446	
1,600.0	1,596.8	2,037.0	1,977.3	3.1	8.2	-54.05	1,191.6	1,207.7	1,681.7	1,671.9	9.78	171.991	
1,700.0	1,696.4	2,124.0	2,059.9	3.3	8.7	-53.50	1,164.7	1,212.4	1,657.1	1,646.7	10.43	158.955	
1,800.0	1,796.0	2,228.3	2,158.9	3.6	9.3	-52.81	1,132.7	1,218.8	1,633.3	1,622.1	11.18	146.066	
1,900.0	1,895.6	2,332.6	2,257.5	3.8	9.9	-52.04	1,098.9	1,225.3	1,608.5	1,596.5	11.97	134.425	
2,000.0	1,995.2	2,429.0	2,348.5	4.0	10.5	-51.33	1,067.7	1,230.9	1,583.7	1,571.0	12.70	124.738	
2,100.0	2,094.7	2,525.2	2,439.6	4.3	11.0	-50.64	1,037.4	1,235.6	1,559.1	1,545.7	13.42	116.190	
2,200.0	2,194.3	2,621.7	2,531.2	4.5	11.6	-49.93	1,007.1	1,240.0	1,534.7	1,520.5	14.14	108.518	
2,300.0	2,293.9	2,714.9	2,619.7	4.7	12.1	-49.25	978.1	1,244.1	1,510.4	1,495.5	14.86	101.653	
2,400.0	2,393.5	2,811.0	2,766.9	5.0	13.1	-48.00	926.8	1,249.6	1,484.7	1,468.7	15.95	93.085	
2,500.0	2,493.0	2,969.1	2,858.7	5.2	13.7	-47.13	892.1	1,251.9	1,456.7	1,439.9	16.75	86.971	
2,600.0	2,592.6	3,057.0	2,940.8	5.4	14.3	-46.30	860.9	1,254.6	1,429.4	1,411.9	17.49	81.709	
2,700.0	2,692.2	3,140.4	3,018.9	5.7	14.8	-45.51	831.7	1,257.2	1,402.9	1,384.7	18.22	76.992	
2,800.0	2,791.8	3,240.7	3,112.7	5.9	15.4	-44.49	796.6	1,261.1	1,377.3	1,358.2	19.06	72.241	
2,900.0	2,891.4	3,346.0	3,211.3	6.1	16.1	-43.43	759.7	1,263.5	1,350.8	1,330.8	19.92	67.799	
3,000.0	2,990.9	3,433.0	3,293.0	6.4	16.6	-42.54	729.7	1,265.1	1,324.8	1,304.1	20.67	64.075	
3,100.0	3,090.5	3,489.1	3,345.9	6.6	17.0	-41.97	711.2	1,267.1	1,301.0	1,279.7	21.22	61.301	
3,200.0	3,190.1	3,562.2	3,415.3	6.8	17.4	-41.23	688.5	1,270.5	1,279.8	1,257.9	21.87	58.512	
3,300.0	3,289.7	3,642.4	3,491.6	7.1	17.8	-40.40	664.2	1,274.9	1,260.1	1,237.5	22.57	55.829	
3,400.0	3,389.2	3,720.0	3,565.5	7.3	18.3	-39.57	641.2	1,280.3	1,242.2	1,219.0	23.25	53.439	
3,500.0	3,488.8	3,816.7	3,658.4	7.6	18.7	-38.64	615.1	1,286.3	1,225.6	1,201.7	23.97	51.136	
3,600.0	3,588.4	3,968.0	3,804.9	7.8	19.4	-37.42	577.3	1,289.6	1,207.2	1,182.3	24.92	48.440	
3,700.0	3,688.0	4,068.4	3,901.1	8.0	20.0	-36.45	548.6	1,290.2	1,185.8	1,160.1	25.70	46.145	
3,800.0	3,787.6	4,132.0	3,961.8	8.3	20.3	-35.74	529.7	1,292.4	1,166.4	1,140.1	26.28	44.376	
3,900.0	3,887.1	4,241.5	4,065.6	8.5	21.0	-34.37	495.5	1,298.2	1,148.4	1,121.2	27.22	42.190	
4,000.0	3,986.7	4,360.9	4,177.6	8.7	21.8	-32.65	454.4	1,303.9	1,128.9	1,100.6	28.26	39.943	
4,100.0	4,086.3	4,450.8	4,261.7	9.0	22.3	-31.29	422.7	1,307.5	1,109.2	1,080.1	29.10	38.116	
4,200.0	4,185.9	4,530.4	4,336.2	9.2	22.8	-30.06	395.2	1,311.4	1,091.3	1,061.4	29.84	36.569	
4,300.0	4,285.4	4,609.5	4,411.1	9.4	23.3	-28.92	370.0	1,315.5	1,075.4	1,044.9	30.54	35.218	
4,400.0	4,385.0	4,696.1	4,493.8	9.7	23.7	-27.75	344.8	1,320.3	1,061.4	1,030.2	31.25	33.969	
4,500.0	4,484.6	4,796.3	4,589.8	9.9	24.3	-26.41	316.5	1,325.7	1,048.2	1,016.1	32.01	32.742	
4,600.0	4,584.2	4,911.8	4,700.9	10.2	24.8	-24.95	285.4	1,329.9	1,034.4	1,001.6	32.82	31.515	
4,700.0	4,683.8	4,996.3	4,782.6	10.4	25.2	-23.92	263.6	1,332.2	1,020.6	987.1	33.43	30.526	
4,800.0	4,783.3	5,079.3	4,863.2	10.6	25.6	-22.99	244.3	1,335.0	1,008.5	974.5	33.99	29.668	
4,900.0	4,882.9	5,174.9	4,956.7	10.9	25.9	-22.06	224.9	1,338.2	997.6	963.1	34.55	28.874	
5,000.0	4,982.5	5,270.8	5,051.2	11.1	26.2	-21.30	208.6	1,340.7	987.2	952.1	35.05	28.161	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 71-Geolink 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	
5,100.0	5,082.1	5,369.1	5,148.4	11.3	26.5	-20.63	194.2	1,342.9	977.1	941.5	35.53	27.500	
5,200.0	5,181.7	5,470.7	5,249.2	11.6	26.8	-20.06	181.3	1,344.4	966.9	930.9	35.97	26.879	
5,300.0	5,281.2	5,571.1	5,349.1	11.8	27.0	-19.64	171.1	1,345.2	956.7	920.3	36.36	26.309	
5,400.0	5,380.8	5,665.4	5,443.1	12.0	27.2	-19.40	164.0	1,345.4	946.5	909.8	36.71	25.786	
5,500.0	5,480.4	5,750.9	5,528.5	12.3	27.3	-19.28	159.5	1,346.0	937.4	900.4	36.99	25.340	
5,600.0	5,580.0	5,868.6	5,646.1	12.5	27.3	-19.38	157.7	1,346.7	929.1	891.8	37.26	24.935	
5,700.0	5,679.5	5,960.3	5,737.8	12.8	27.4	-19.57	157.6	1,345.4	919.1	881.6	37.51	24.504	
5,800.0	5,779.1	6,052.0	5,829.5	13.0	27.5	-19.73	157.3	1,345.5	910.4	872.7	37.76	24.110	
5,900.0	5,878.7	6,147.0	5,924.6	13.2	27.5	-19.90	157.2	1,346.2	902.5	864.5	38.00	23.747	
6,000.0	5,978.3	6,245.7	6,023.2	13.5	27.6	-20.11	157.6	1,346.8	894.5	856.3	38.25	23.389	
6,100.0	6,077.9	6,342.0	6,119.5	13.7	27.7	-20.33	158.2	1,347.6	886.9	848.4	38.50	23.039	
6,200.0	6,177.4	6,441.1	6,218.6	13.9	27.7	-20.54	158.5	1,348.8	879.6	840.8	38.75	22.701	
6,300.0	6,277.0	6,544.5	6,322.0	14.2	27.8	-20.77	158.9	1,349.8	872.0	833.0	39.00	22.359	
6,400.0	6,376.6	6,645.2	6,422.7	14.4	27.9	-21.00	159.2	1,350.5	864.1	824.9	39.26	22.012	
6,500.0	6,476.2	6,744.7	6,522.2	14.7	27.9	-21.22	159.4	1,351.1	856.2	816.7	39.51	21.669	
6,600.0	6,575.7	6,843.9	6,621.4	14.9	28.0	-21.43	159.5	1,351.9	848.4	808.6	39.78	21.329	
6,700.0	6,675.3	6,943.1	6,720.6	15.1	28.1	-21.64	159.4	1,352.7	840.6	800.6	40.04	20.994	
6,800.0	6,774.9	7,042.2	6,819.7	15.4	28.2	-21.84	159.2	1,353.6	832.9	792.6	40.31	20.664	
6,900.0	6,874.5	7,141.1	6,918.6	15.6	28.3	-22.03	158.8	1,354.6	825.3	784.7	40.59	20.335	
6,949.9	6,924.1	7,190.2	6,967.7	15.7	28.3	-22.11	158.5	1,355.2	821.6	780.8	40.73	20.170	
7,000.0	6,974.0	7,239.5	7,017.0	15.8	28.4	24.59	157.9	1,355.9	817.2	776.4	40.79	20.036	
7,050.0	7,023.4	7,289.2	7,066.6	15.9	28.4	45.97	157.2	1,356.7	811.8	771.0	40.81	19.891	
7,100.0	7,072.1	7,340.3	7,117.8	16.0	28.5	56.29	156.5	1,357.4	805.2	764.3	40.81	19.729	
7,150.0	7,119.7	7,390.3	7,167.8	16.2	28.5	62.80	155.9	1,357.8	797.6	756.7	40.82	19.540	
7,200.0	7,165.9	7,438.8	7,216.3	16.3	28.6	67.80	155.5	1,358.1	789.2	748.4	40.84	19.324	
7,250.0	7,210.2	7,487.1	7,264.5	16.4	28.6	72.17	155.3	1,358.2	780.5	739.6	40.91	19.081	
7,300.0	7,252.5	7,533.4	7,310.9	16.5	28.6	76.21	155.0	1,357.9	771.7	730.7	41.02	18.812	
7,350.0	7,292.2	7,577.1	7,354.5	16.7	28.7	80.02	154.8	1,357.5	763.3	722.1	41.19	18.531	
7,400.0	7,329.2	7,617.7	7,395.1	16.8	28.7	83.58	154.7	1,356.8	755.9	714.5	41.41	18.256	
7,450.0	7,363.2	7,650.8	7,428.3	17.0	28.7	86.61	154.6	1,356.2	750.0	708.4	41.65	18.007	
7,500.0	7,393.8	7,680.0	7,457.5	17.3	28.8	89.19	154.6	1,355.8	746.4	704.5	41.93	17.800	
7,540.7	7,416.2	7,701.3	7,478.8	17.5	28.8	90.95	154.5	1,355.4	745.5	703.3	42.19	17.670 CC	
7,550.0	7,421.0	7,705.9	7,483.3	17.5	28.8	91.31	154.5	1,355.4	745.5	703.3	42.24	17.648 ES	
7,600.0	7,444.3	7,728.2	7,505.6	17.8	28.8	92.88	154.5	1,355.1	747.7	705.1	42.59	17.555	
7,650.0	7,463.8	7,746.7	7,524.1	18.2	28.8	93.85	154.4	1,354.8	753.2	710.3	42.99	17.523 SF	
7,700.0	7,479.2	7,761.3	7,538.8	18.5	28.8	94.16	154.4	1,354.7	762.4	718.9	43.44	17.551	
7,750.0	7,490.4	7,772.0	7,549.4	18.9	28.8	93.76	154.4	1,354.6	775.1	731.1	43.95	17.637	
7,800.0	7,497.4	7,778.6	7,556.0	19.3	28.8	92.63	154.4	1,354.5	791.3	746.8	44.51	17.779	
7,850.0	7,500.0	7,781.0	7,558.4	19.8	28.8	90.74	154.4	1,354.5	810.8	765.7	45.10	17.979	
7,855.2	7,500.0	7,781.0	7,558.4	19.9	28.8	90.50	154.4	1,354.5	813.0	767.9	45.16	18.004	
7,900.0	7,500.0	7,780.9	7,558.3	20.3	28.8	90.49	154.4	1,354.5	833.1	787.5	45.68	18.239	
8,000.0	7,500.0	7,780.7	7,558.2	21.3	28.8	90.48	154.4	1,354.5	884.6	837.7	46.90	18.859	
8,100.0	7,500.0	7,780.6	7,558.0	22.5	28.8	90.47	154.4	1,354.5	943.9	895.6	48.21	19.577	
8,200.0	7,500.0	7,780.4	7,557.8	23.7	28.8	90.45	154.4	1,354.5	1,009.6	960.0	49.58	20.361	
8,300.0	7,500.0	7,780.2	7,557.6	25.0	28.8	90.44	154.4	1,354.5	1,080.6	1,029.6	51.01	21.183	
8,400.0	7,500.0	7,780.0	7,557.5	26.3	28.8	90.43	154.4	1,354.5	1,155.8	1,103.4	52.48	22.025	
8,500.0	7,500.0	7,779.9	7,557.3	27.7	28.8	90.41	154.4	1,354.5	1,234.7	1,180.7	53.98	22.871	
8,600.0	7,500.0	7,779.7	7,557.1	29.1	28.8	90.40	154.4	1,354.5	1,316.3	1,260.8	55.52	23.709	
8,700.0	7,500.0	7,779.5	7,556.9	30.5	28.8	90.38	154.4	1,354.5	1,400.4	1,343.3	57.08	24.534	
8,800.0	7,500.0	7,779.3	7,556.8	32.0	28.8	90.37	154.4	1,354.5	1,486.4	1,427.8	58.66	25.339	
8,900.0	7,500.0	7,779.2	7,556.6	33.5	28.8	90.36	154.4	1,354.5	1,574.1	1,513.9	60.26	26.121	
9,000.0	7,500.0	7,779.0	7,556.4	35.1	28.8	90.34	154.4	1,354.5	1,663.2	1,601.3	61.88	26.879	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 22-7 (EXISTING) - ENCANA WELL - SU													Offset Site Error:	0.0 ft
Survey Program: 71-Geolink 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		
9,100.0	7,500.0	7,778.8	7,556.2	36.6	28.8	90.33	154.4	1,354.5	1,753.5	1,689.9	63.51	27.610		
9,200.0	7,500.0	7,778.6	7,556.1	38.2	28.8	90.32	154.4	1,354.5	1,844.7	1,779.6	65.15	28.316		
9,300.0	7,500.0	7,778.5	7,555.9	39.8	28.8	90.30	154.4	1,354.5	1,936.8	1,870.0	66.80	28.995		
9,400.0	7,500.0	7,778.3	7,555.7	41.4	28.8	90.29	154.4	1,354.5	2,029.7	1,961.3	68.46	29.649		
9,500.0	7,500.0	7,778.1	7,555.5	43.0	28.8	90.27	154.4	1,354.5	2,123.2	2,053.1	70.12	30.278		
9,600.0	7,500.0	7,777.9	7,555.3	44.6	28.8	90.26	154.4	1,354.5	2,217.3	2,145.5	71.80	30.882		
9,700.0	7,500.0	7,777.7	7,555.2	46.2	28.8	90.25	154.4	1,354.5	2,311.9	2,238.4	73.48	31.463		
9,800.0	7,500.0	7,777.6	7,555.0	47.9	28.8	90.23	154.4	1,354.5	2,406.9	2,331.7	75.16	32.022		
9,900.0	7,500.0	7,777.4	7,554.8	49.5	28.8	90.22	154.4	1,354.5	2,502.3	2,425.5	76.86	32.559		
10,000.0	7,500.0	7,777.2	7,554.6	51.2	28.8	90.21	154.4	1,354.5	2,598.1	2,519.5	78.55	33.075		
10,046.2	7,500.0	7,777.1	7,554.6	51.9	28.8	90.20	154.4	1,354.5	2,642.4	2,563.1	79.33	33.307		
10,100.0	7,500.0	7,777.0	7,554.5	52.8	28.8	90.20	154.4	1,354.5	2,694.2	2,614.0	80.18	33.601		
10,200.0	7,500.0	7,776.9	7,554.3	54.5	28.8	90.20	154.4	1,354.5	2,791.0	2,709.2	81.75	34.142		
10,300.0	7,500.0	7,776.7	7,554.2	56.1	28.8	90.20	154.4	1,354.5	2,888.4	2,805.1	83.29	34.678		
10,400.0	7,500.0	7,776.6	7,554.0	57.8	28.8	90.21	154.4	1,354.5	2,986.4	2,901.5	84.82	35.209		
10,500.0	7,500.0	7,776.5	7,553.9	59.5	28.8	90.21	154.4	1,354.5	3,084.8	2,998.4	86.32	35.735		
10,600.0	7,500.0	7,776.4	7,553.8	61.1	28.8	90.23	154.4	1,354.5	3,183.5	3,095.7	87.81	36.255		
10,700.0	7,500.0	7,776.3	7,553.7	62.8	28.8	90.25	154.4	1,354.5	3,282.6	3,193.4	89.28	36.769		
10,800.0	7,500.0	7,776.3	7,553.7	64.4	28.8	90.28	154.4	1,354.5	3,382.0	3,291.3	90.72	37.279		
10,906.2	7,500.0	7,776.2	7,553.6	66.2	28.8	90.33	154.4	1,354.5	3,487.7	3,395.5	92.23	37.815		
11,000.0	7,500.0	7,776.2	7,553.6	67.7	28.8	90.33	154.4	1,354.5	3,581.2	3,487.4	93.85	38.159		
11,100.0	7,500.0	7,776.2	7,553.6	69.4	28.8	90.32	154.4	1,354.5	3,680.9	3,585.4	95.58	38.512		
11,200.0	7,500.0	7,776.1	7,553.5	71.0	28.8	90.31	154.4	1,354.5	3,780.7	3,683.3	97.31	38.853		
11,256.2	7,500.0	7,776.1	7,553.5	72.0	28.8	90.31	154.4	1,354.5	3,836.7	3,738.4	98.28	39.038		
11,300.0	7,500.0	7,776.1	7,553.5	72.7	28.8	90.28	154.4	1,354.5	3,880.4	3,781.2	99.18	39.126		
11,400.0	7,500.0	7,776.0	7,553.5	74.4	28.8	90.22	154.4	1,354.5	3,980.0	3,878.8	101.20	39.329		
11,500.0	7,500.0	7,776.0	7,553.4	76.1	28.8	90.18	154.4	1,354.5	4,079.4	3,976.2	103.19	39.532		
11,600.0	7,500.0	7,775.9	7,553.3	77.8	28.8	90.14	154.4	1,354.5	4,178.7	4,073.6	105.16	39.736		
11,700.0	7,500.0	7,775.8	7,553.2	79.5	28.8	90.12	154.4	1,354.5	4,277.9	4,170.8	107.10	39.941		
11,800.0	7,500.0	7,775.7	7,553.1	81.2	28.8	90.09	154.4	1,354.5	4,376.8	4,267.8	109.02	40.148		
11,900.0	7,500.0	7,775.5	7,553.0	82.9	28.8	90.07	154.4	1,354.5	4,475.5	4,364.6	110.90	40.356		
12,000.0	7,500.0	7,775.4	7,552.8	84.7	28.8	90.06	154.4	1,354.5	4,574.0	4,461.2	112.75	40.567		
12,100.0	7,500.0	7,775.2	7,552.6	86.4	28.8	90.04	154.4	1,354.5	4,672.2	4,557.7	114.57	40.779		
12,169.2	7,500.0	7,775.1	7,552.5	87.6	28.8	90.03	154.4	1,354.5	4,740.0	4,624.2	115.82	40.927		
12,200.0	7,500.0	7,775.0	7,552.5	88.1	28.8	90.03	154.4	1,354.5	4,770.2	4,653.9	116.35	40.998		
12,300.0	7,500.0	7,774.8	7,552.3	89.8	28.8	90.02	154.4	1,354.5	4,868.2	4,750.1	118.09	41.225		
12,400.0	7,500.0	7,774.7	7,552.1	91.6	28.8	90.00	154.4	1,354.5	4,966.3	4,846.5	119.83	41.446		
12,500.0	7,500.0	7,774.5	7,551.9	93.3	28.8	89.99	154.4	1,354.5	5,064.5	4,942.9	121.56	41.661		
12,600.0	7,500.0	7,774.3	7,551.7	95.0	28.8	89.98	154.4	1,354.5	5,162.7	5,039.4	123.30	41.871		
12,700.0	7,500.0	7,774.1	7,551.5	96.8	28.8	89.97	154.4	1,354.5	5,261.0	5,135.9	125.04	42.075		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SU													Offset Site Error:	0.0 ft
Survey Program: 41-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					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)	Total Uncertainty Axis			
0.0	0.0	104.0	104.0	0.0	0.2	35.71	1,584.2	1,139.0	1,951.8					
100.0	100.0	302.9	302.6	0.2	0.6	35.77	1,574.8	1,134.4	1,946.7	1,945.9	0.74	2,614.377		
200.0	200.0	501.3	499.8	0.3	1.1	35.98	1,554.0	1,128.4	1,936.4	1,935.0	1.43	1,352.339		
300.0	300.0	614.4	611.7	0.5	1.5	36.21	1,537.9	1,125.8	1,923.6	1,921.6	1.94	993.535		
400.0	400.0	754.4	749.6	0.7	1.9	36.58	1,513.8	1,123.3	1,908.4	1,905.8	2.56	744.420		
500.0	500.0	868.1	861.1	0.8	2.4	36.94	1,492.0	1,121.8	1,892.1	1,889.0	3.12	605.954		
600.0	600.0	940.8	932.6	1.0	2.6	-59.37	1,478.5	1,121.4	1,876.3	1,873.4	2.92	642.672		
700.0	700.0	1,084.5	1,073.6	1.2	3.2	-59.13	1,450.9	1,120.4	1,859.4	1,855.9	3.46	537.278		
800.0	799.9	1,309.9	1,292.3	1.4	4.2	-58.68	1,396.9	1,115.0	1,836.7	1,832.5	4.27	430.116		
900.0	899.7	1,446.7	1,423.2	1.6	4.9	-58.50	1,357.5	1,109.7	1,808.4	1,803.5	4.87	371.407		
1,000.0	999.4	1,571.7	1,541.9	1.8	5.7	-58.37	1,318.7	1,104.9	1,777.5	1,772.0	5.46	325.295		
1,026.5	1,025.7	1,603.7	1,572.2	1.8	5.8	-58.34	1,308.4	1,103.6	1,768.9	1,763.3	5.62	314.679		
1,100.0	1,098.9	1,705.8	1,668.4	2.0	6.5	-57.99	1,274.5	1,099.4	1,744.4	1,738.2	6.14	284.241		
1,200.0	1,198.5	1,891.9	1,840.7	2.2	7.8	-57.16	1,204.9	1,090.1	1,707.0	1,699.9	7.09	240.718		
1,300.0	1,298.1	1,998.1	1,937.5	2.4	8.5	-56.56	1,161.5	1,085.1	1,667.5	1,659.7	7.78	214.284		
1,400.0	1,397.7	2,104.1	2,033.6	2.7	9.3	-55.92	1,117.2	1,079.5	1,627.0	1,618.5	8.50	191.497		
1,500.0	1,497.3	2,226.9	2,144.0	2.9	10.3	-55.03	1,063.5	1,073.8	1,585.6	1,576.2	9.36	169.328		
1,600.0	1,596.8	2,346.0	2,249.3	3.1	11.3	-54.05	1,008.3	1,067.6	1,541.8	1,531.6	10.26	150.345		
1,700.0	1,696.4	2,427.4	2,321.4	3.3	11.9	-53.37	971.0	1,062.4	1,498.1	1,487.2	10.94	136.988		
1,800.0	1,796.0	2,501.7	2,387.5	3.6	12.5	-52.72	937.3	1,057.9	1,455.2	1,443.6	11.59	125.575		
1,900.0	1,895.6	2,574.2	2,452.4	3.8	13.1	-52.07	905.1	1,054.0	1,413.6	1,401.4	12.24	115.522		
2,000.0	1,995.2	2,667.8	2,536.5	4.0	13.8	-51.25	864.7	1,048.1	1,372.6	1,359.6	13.00	105.555		
2,100.0	2,094.7	2,751.8	2,612.0	4.3	14.5	-50.46	828.1	1,042.9	1,331.6	1,317.9	13.75	96.848		
2,200.0	2,194.3	2,822.0	2,675.3	4.5	15.0	-49.74	797.9	1,039.7	1,292.3	1,277.8	14.43	89.558		
2,300.0	2,293.9	2,949.1	2,789.4	4.7	16.0	-48.38	742.5	1,032.1	1,251.9	1,236.4	15.50	80.766		
2,400.0	2,393.5	3,040.1	2,870.9	5.0	16.8	-47.35	702.6	1,025.6	1,211.0	1,194.6	16.34	74.102		
2,500.0	2,493.0	3,128.8	2,950.5	5.2	17.4	-46.34	664.2	1,018.3	1,170.0	1,152.8	17.17	68.140		
2,600.0	2,592.6	3,225.6	3,037.6	5.4	18.2	-45.18	622.6	1,010.2	1,129.6	1,111.5	18.09	62.453		
2,700.0	2,692.2	3,309.3	3,112.4	5.7	18.9	-44.06	585.7	1,003.1	1,088.8	1,069.8	18.95	57.440		
2,800.0	2,791.8	3,403.4	3,196.6	5.9	19.6	-42.67	544.3	996.4	1,049.2	1,029.3	19.94	52.608		
2,900.0	2,891.4	3,489.0	3,272.9	6.1	20.3	-41.33	506.3	989.3	1,009.3	988.4	20.90	48.302		
3,000.0	2,990.9	3,568.8	3,344.3	6.4	21.0	-39.95	470.8	983.9	971.0	949.1	21.84	44.450		
3,100.0	3,090.5	3,662.6	3,428.1	6.6	21.7	-38.20	429.1	977.8	933.6	910.7	22.95	40.678		
3,200.0	3,190.1	3,757.0	3,512.6	6.8	22.5	-36.38	387.8	970.3	896.2	872.1	24.06	37.240		
3,300.0	3,289.7	3,842.3	3,589.5	7.1	23.1	-34.72	351.6	962.6	859.5	834.4	25.07	34.283		
3,400.0	3,389.2	3,926.3	3,665.9	7.3	23.7	-33.08	317.7	954.6	824.1	798.1	26.06	31.624		
3,500.0	3,488.8	4,007.9	3,740.2	7.6	24.3	-31.36	284.8	947.5	790.4	763.3	27.07	29.198		
3,600.0	3,588.4	4,096.7	3,821.1	7.8	25.0	-29.26	248.5	941.0	758.4	730.2	28.21	26.887		
3,700.0	3,688.0	4,177.3	3,894.1	8.0	25.6	-27.15	214.8	935.6	727.7	698.4	29.32	24.825		
3,800.0	3,787.6	4,258.1	3,967.0	8.3	26.2	-24.78	180.4	932.3	700.3	669.8	30.47	22.984		
3,900.0	3,887.1	4,346.9	4,047.4	8.5	26.9	-22.00	142.6	928.8	674.8	643.1	31.72	21.273		
4,000.0	3,986.7	4,443.1	4,134.4	8.7	27.7	-18.80	101.7	925.2	651.4	618.3	33.08	19.692		
4,100.0	4,086.3	4,546.1	4,225.6	9.0	28.5	-14.80	54.2	920.2	628.3	593.7	34.59	18.166		
4,200.0	4,185.9	4,635.1	4,303.8	9.2	29.3	-11.05	12.2	914.9	606.9	571.0	35.87	16.918		
4,300.0	4,285.4	4,714.9	4,374.7	9.4	29.9	-7.63	-24.3	910.5	589.2	552.3	36.94	15.949		
4,400.0	4,385.0	4,800.2	4,451.9	9.7	30.5	-4.11	-60.4	906.8	575.9	537.9	37.93	15.180		
4,500.0	4,484.6	4,892.6	4,537.1	9.9	31.1	-0.55	-95.8	903.3	565.4	526.6	38.84	14.559		
4,600.0	4,584.2	4,996.4	4,634.4	10.2	31.8	3.19	-131.8	898.8	556.6	517.0	39.66	14.033		
4,700.0	4,683.8	5,089.4	4,722.4	10.4	32.3	6.37	-161.3	894.1	548.8	508.5	40.31	13.615		
4,800.0	4,783.3	5,187.1	4,816.0	10.6	32.8	9.46	-189.4	889.9	542.7	501.9	40.83	13.293		
4,900.0	4,882.9	5,288.2	4,913.8	10.9	33.2	12.30	-214.3	886.0	537.5	496.2	41.25	13.030		
5,000.0	4,982.5	5,389.5	5,013.0	11.1	33.6	14.68	-234.6	882.9	532.6	491.0	41.57	12.811		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 41-Geolink 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	5,082.1	5,491.9	5,113.9	11.3	33.9	16.79	-251.9	880.2	527.7	485.9	41.85	12.610	
5,200.0	5,181.7	5,600.0	5,220.9	11.6	34.2	18.79	-267.2	877.2	522.3	480.2	42.06	12.416	
5,300.0	5,281.2	5,706.7	5,327.0	11.8	34.4	20.36	-277.9	874.1	515.4	473.1	42.26	12.196	
5,400.0	5,380.8	5,810.2	5,430.2	12.0	34.6	21.61	-285.1	871.3	507.6	465.2	42.41	11.967	
5,500.0	5,480.4	5,911.9	5,531.8	12.3	34.7	22.53	-289.4	869.6	499.6	457.0	42.57	11.735	
5,600.0	5,580.0	6,018.5	5,638.4	12.5	34.8	23.28	-291.4	867.7	490.5	447.8	42.73	11.479	
5,700.0	5,679.5	6,119.5	5,739.3	12.8	34.8	23.83	-291.4	865.8	480.5	437.6	42.90	11.201	
5,800.0	5,779.1	6,218.4	5,838.2	13.0	34.9	24.37	-291.3	864.1	470.5	427.5	43.07	10.926	
5,900.0	5,878.7	6,317.4	5,937.2	13.2	35.0	24.96	-291.3	862.4	460.7	417.5	43.23	10.658	
6,000.0	5,978.3	6,416.4	6,036.2	13.5	35.0	25.57	-291.5	860.7	451.1	407.7	43.39	10.396	
6,100.0	6,077.9	6,515.3	6,135.1	13.7	35.1	26.20	-291.6	859.2	441.6	398.0	43.54	10.142	
6,200.0	6,177.4	6,613.7	6,233.5	13.9	35.1	26.79	-291.4	858.1	432.3	388.6	43.68	9.897	
6,300.0	6,277.0	6,712.5	6,332.3	14.2	35.2	27.32	-290.8	857.5	423.3	379.4	43.84	9.656	
6,400.0	6,376.6	6,811.6	6,431.4	14.4	35.2	27.90	-290.4	856.9	414.4	370.4	43.99	9.421	
6,500.0	6,476.2	6,911.1	6,530.8	14.7	35.3	28.55	-290.3	856.2	405.7	361.5	44.13	9.192	
6,600.0	6,575.7	7,010.6	6,630.4	14.9	35.4	29.25	-290.3	855.3	397.0	352.7	44.27	8.967	
6,700.0	6,675.3	7,110.7	6,730.4	15.1	35.4	30.02	-290.4	854.3	388.3	343.9	44.40	8.745	
6,800.0	6,774.9	7,210.7	6,830.4	15.4	35.5	30.86	-290.7	853.1	379.5	334.9	44.51	8.524	
6,900.0	6,874.5	7,310.4	6,930.1	15.6	35.6	31.76	-291.0	851.6	370.7	326.0	44.62	8.307	
6,949.9	6,924.1	7,360.1	6,979.9	15.7	35.6	32.23	-291.1	850.9	366.3	321.6	44.67	8.200	
7,000.0	6,974.0	7,410.4	7,030.1	15.8	35.6	32.93	-291.3	850.1	363.2	318.5	44.74	8.119	
7,029.3	7,003.1	7,439.7	7,059.4	15.9	35.7	33.33	-291.3	849.6	362.7	318.0	44.73	8.110 CC, ES, SF	
7,050.0	7,023.4	7,460.2	7,079.9	15.9	35.7	33.79	-291.4	849.2	363.0	318.3	44.69	8.123	
7,100.0	7,072.1	7,509.2	7,128.9	16.0	35.7	34.33	-291.4	848.3	365.8	321.3	44.51	8.217	
7,150.0	7,119.7	7,557.1	7,176.8	16.2	35.7	34.96	-291.5	847.4	371.8	327.6	44.21	8.411	
7,200.0	7,165.9	7,603.3	7,222.9	16.3	35.8	35.68	-291.5	846.5	381.5	337.7	43.79	8.713	
7,250.0	7,210.2	7,647.7	7,267.3	16.4	35.8	36.45	-291.4	845.7	395.0	351.8	43.27	9.129	
7,300.0	7,252.5	7,690.0	7,309.6	16.5	35.8	37.24	-291.4	844.9	412.6	369.9	42.69	9.664	
7,350.0	7,292.2	7,730.0	7,349.7	16.7	35.8	38.06	-291.3	844.1	434.1	392.0	42.08	10.317	
7,400.0	7,329.2	7,767.5	7,387.2	16.8	35.9	38.91	-291.2	843.4	459.6	418.2	41.49	11.079	
7,450.0	7,363.2	7,802.0	7,421.7	17.0	35.9	39.79	-291.1	842.7	489.0	448.0	40.99	11.929	
7,500.0	7,393.8	7,833.3	7,452.9	17.3	35.9	40.68	-290.9	842.1	521.9	481.3	40.67	12.832	
7,550.0	7,421.0	7,861.1	7,480.7	17.5	35.9	41.59	-290.8	841.6	558.2	517.5	40.63	13.738	
7,600.0	7,444.3	7,885.1	7,504.7	17.8	35.9	42.51	-290.6	841.1	597.4	556.4	40.99	14.573	
7,650.0	7,463.8	7,904.8	7,524.4	18.2	35.9	43.44	-290.5	840.7	639.1	597.2	41.94	15.239	
7,700.0	7,479.2	7,920.4	7,540.0	18.5	36.0	44.38	-290.3	840.4	683.0	639.4	43.63	15.653	
7,750.0	7,490.4	7,931.9	7,551.5	18.9	36.0	45.33	-290.3	840.3	728.6	682.4	46.20	15.773	
7,800.0	7,497.4	7,939.2	7,558.8	19.3	36.0	46.29	-290.2	840.1	775.5	726.1	49.41	15.697	
7,850.0	7,500.0	7,942.2	7,561.8	19.8	36.0	47.26	-290.2	840.1	823.3	771.3	52.04	15.822	
7,855.2	7,500.0	7,942.3	7,561.9	19.9	36.0	47.72	-290.2	840.1	828.3	776.1	52.18	15.875	
7,900.0	7,500.0	7,942.6	7,562.3	20.3	36.0	48.18	-290.2	840.1	871.5	818.8	52.69	16.540	
8,000.0	7,500.0	7,943.5	7,563.1	21.3	36.0	49.14	-290.2	840.1	968.5	914.5	53.91	17.964	
8,100.0	7,500.0	7,944.3	7,563.9	22.5	36.0	50.10	-290.2	840.1	1,066.0	1,010.7	55.21	19.308	
8,200.0	7,500.0	7,945.1	7,564.7	23.7	36.0	51.06	-290.1	840.1	1,163.9	1,107.3	56.57	20.574	
8,300.0	7,500.0	7,945.9	7,565.5	25.0	36.0	52.02	-290.1	840.0	1,262.1	1,204.1	57.98	21.768	
8,400.0	7,500.0	7,946.7	7,566.3	26.3	36.0	52.98	-290.1	840.0	1,360.6	1,301.2	59.44	22.892	
8,500.0	7,500.0	7,947.5	7,567.1	27.7	36.0	53.94	-290.1	840.0	1,459.3	1,398.4	60.93	23.952	
8,600.0	7,500.0	7,948.3	7,568.0	29.1	36.0	54.90	-290.1	840.0	1,558.2	1,495.8	62.45	24.953	
8,700.0	7,500.0	7,949.2	7,568.8	30.5	36.0	55.86	-290.1	840.0	1,657.2	1,593.2	63.99	25.899	
8,800.0	7,500.0	7,950.0	7,569.6	32.0	36.0	56.82	-290.1	840.0	1,756.3	1,690.8	65.55	26.794	
8,900.0	7,500.0	7,950.8	7,570.4	33.5	36.0	57.78	-290.1	840.0	1,855.5	1,788.4	67.13	27.642	
9,000.0	7,500.0	7,951.7	7,571.3	35.1	36.0	58.74	-290.1	840.0	1,954.8	1,886.1	68.72	28.446	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 2-4-7 (EXISTING) - ENCANA WELL - SU										Offset Site Error:		0.0 ft	
Survey Program: 41-Geolink 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	
9,100.0	7,500.0	7,952.5	7,572.1	36.6	36.0	95.10	-290.1	839.9	2,054.2	1,983.9	70.32	29.211	
9,200.0	7,500.0	7,953.3	7,572.9	38.2	36.0	95.31	-290.1	839.9	2,153.6	2,081.7	71.94	29.938	
9,300.0	7,500.0	7,954.2	7,573.8	39.8	36.0	95.52	-290.1	839.9	2,253.1	2,179.5	73.56	30.631	
9,400.0	7,500.0	7,955.0	7,574.6	41.4	36.0	95.74	-290.1	839.9	2,352.6	2,277.4	75.18	31.292	
9,500.0	7,500.0	7,955.9	7,575.5	43.0	36.0	95.95	-290.1	839.9	2,452.2	2,375.3	76.82	31.923	
9,600.0	7,500.0	7,956.7	7,576.3	44.6	36.0	96.17	-290.0	839.9	2,551.7	2,473.3	78.45	32.526	
9,700.0	7,500.0	7,957.6	7,577.2	46.2	36.0	96.38	-290.0	839.9	2,651.4	2,571.3	80.09	33.103	
9,800.0	7,500.0	7,958.4	7,578.1	47.9	36.0	96.60	-290.0	839.9	2,751.0	2,669.3	81.74	33.657	
9,900.0	7,500.0	7,959.3	7,578.9	49.5	36.0	96.82	-290.0	839.8	2,850.7	2,767.3	83.38	34.188	
10,000.0	7,500.0	7,960.2	7,579.8	51.2	36.0	97.03	-290.0	839.8	2,950.4	2,865.3	85.03	34.698	
10,046.2	7,500.0	7,960.6	7,580.2	51.9	36.0	97.13	-290.0	839.8	2,996.4	2,910.6	85.79	34.927	
10,100.0	7,500.0	7,961.0	7,580.7	52.8	36.0	98.28	-290.0	839.8	3,050.1	2,963.8	86.34	35.327	
10,200.0	7,500.0	7,961.9	7,581.6	54.5	36.0	101.69	-290.0	839.8	3,150.0	3,063.1	86.89	36.252	
10,300.0	7,500.0	7,962.9	7,582.5	56.1	36.0	109.30	-290.0	839.8	3,249.9	3,164.6	85.28	38.107	
10,400.0	7,500.0	7,963.8	7,583.4	57.8	36.0	136.88	-290.0	839.8	3,349.9	3,285.1	64.75	51.733	
10,500.0	7,500.0	7,964.8	7,584.4	59.5	36.0	-137.32	-290.0	839.8	3,449.9	3,384.5	65.31	52.822	
10,600.0	7,500.0	7,965.8	7,585.4	61.1	36.0	-110.18	-290.0	839.8	3,549.8	3,461.1	88.72	40.012	
10,700.0	7,500.0	7,966.9	7,586.5	62.8	36.0	-102.63	-290.0	839.7	3,649.8	3,556.5	93.25	39.140	
10,800.0	7,500.0	7,967.9	7,587.5	64.4	36.0	-99.25	-290.0	839.7	3,749.6	3,654.1	95.52	39.256	
10,906.2	7,500.0	7,969.1	7,588.7	66.2	36.0	-97.24	-289.9	839.7	3,855.6	3,758.3	97.30	39.625	
11,000.0	7,500.0	7,970.1	7,589.7	67.7	36.0	-97.44	-289.9	839.7	3,949.1	3,850.3	98.87	39.945	
11,100.0	7,500.0	7,971.2	7,590.8	69.4	36.0	-97.66	-289.9	839.7	4,048.9	3,948.3	100.53	40.275	
11,200.0	7,500.0	7,972.3	7,591.9	71.0	36.0	-97.87	-289.9	839.7	4,148.6	4,046.4	102.20	40.595	
11,256.2	7,500.0	7,972.9	7,592.5	72.0	36.0	-97.99	-289.9	839.7	4,204.7	4,101.5	103.13	40.770	
11,300.0	7,500.0	7,973.4	7,593.0	72.7	36.0	-99.09	-289.9	839.6	4,248.4	4,144.6	103.81	40.926	
11,400.0	7,500.0	7,974.5	7,594.1	74.4	36.0	-103.06	-289.9	839.6	4,348.3	4,243.6	104.61	41.564	
11,500.0	7,500.0	7,975.6	7,595.2	76.1	36.0	-112.39	-289.9	839.6	4,448.2	4,346.6	101.62	43.774	
11,600.0	7,500.0	7,976.6	7,596.2	77.8	36.0	-149.23	-289.9	839.6	4,548.2	4,486.8	61.35	74.140	
11,700.0	7,500.0	7,977.6	7,597.2	79.5	36.0	130.01	-289.9	839.6	4,648.2	4,559.5	88.67	52.422	
11,800.0	7,500.0	7,978.6	7,598.3	81.2	36.0	108.80	-289.9	839.6	4,748.1	4,638.3	109.83	43.231	
11,900.0	7,500.0	7,979.6	7,599.2	82.9	36.0	102.14	-289.9	839.6	4,848.1	4,732.9	115.20	42.084	
12,000.0	7,500.0	7,980.6	7,600.2	84.7	36.0	98.98	-289.8	839.6	4,947.9	4,829.6	118.30	41.826	
12,100.0	7,500.0	7,981.5	7,601.2	86.4	36.0	97.15	-289.8	839.5	5,047.7	4,926.9	120.76	41.800	
12,169.2	7,500.0	7,982.2	7,601.8	87.6	36.0	96.27	-289.8	839.5	5,116.6	4,994.3	122.30	41.838	
12,200.0	7,500.0	7,982.5	7,602.1	88.1	36.0	96.31	-289.8	839.5	5,147.3	5,024.5	122.82	41.909	
12,300.0	7,500.0	7,983.4	7,603.0	89.8	36.0	96.42	-289.8	839.5	5,246.9	5,122.4	124.52	42.137	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 4-0-7 (EXISTING) - ENCANA WELL - SU													Offset Site Error:	0.0 ft
Survey Program: 71-Geolink 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	49.8	49.8	0.0	0.1	35.23	1,615.2	1,140.7	1,977.4					
100.0	100.0	125.6	125.6	0.2	0.2	35.24	1,615.5	1,141.2	1,978.1	1,977.7	0.37	5,316.216		
200.0	200.0	190.5	190.5	0.3	0.3	35.26	1,616.2	1,142.6	1,980.2	1,979.5	0.66	2,981.142		
300.0	300.0	254.0	253.9	0.5	0.5	35.30	1,617.6	1,145.2	1,984.4	1,983.4	0.96	2,070.119		
400.0	400.0	307.8	307.6	0.7	0.6	35.34	1,619.5	1,148.4	1,990.6	1,989.3	1.25	1,597.614		
500.0	500.0	345.0	344.6	0.8	0.7	35.38	1,621.2	1,151.1	1,999.0	1,997.6	1.50	1,333.150		
600.0	600.0	437.0	436.1	1.0	0.9	-60.86	1,627.4	1,159.2	2,009.3	2,007.5	1.80	1,113.171		
700.0	700.0	468.5	467.3	1.2	1.0	-60.76	1,630.3	1,162.4	2,020.7	2,018.7	2.04	990.464		
800.0	799.9	529.0	527.0	1.4	1.2	-60.66	1,636.8	1,169.3	2,033.9	2,031.6	2.33	873.053		
900.0	899.7	577.2	574.4	1.6	1.4	-60.56	1,642.9	1,175.5	2,048.4	2,045.7	2.61	785.493		
1,000.0	999.4	638.3	634.3	1.8	1.6	-60.48	1,651.2	1,184.2	2,064.0	2,061.1	2.92	707.523		
1,026.5	1,025.7	657.5	653.1	1.8	1.7	-60.47	1,654.0	1,187.1	2,068.2	2,065.2	3.01	687.862		
1,100.0	1,098.9	712.0	706.4	2.0	1.9	-60.53	1,662.1	1,195.4	2,080.4	2,077.2	3.26	638.587		
1,200.0	1,198.5	896.3	887.0	2.2	2.6	-60.78	1,688.2	1,220.9	2,095.7	2,091.9	3.80	551.182		
1,300.0	1,298.1	995.1	984.3	2.4	2.9	-60.91	1,700.1	1,233.2	2,108.4	2,104.2	4.20	502.428		
1,400.0	1,397.7	1,060.2	1,048.3	2.7	3.2	-60.99	1,708.3	1,241.8	2,122.0	2,117.5	4.53	468.139		
1,500.0	1,497.3	1,120.0	1,106.8	2.9	3.4	-61.05	1,716.6	1,250.9	2,137.7	2,132.8	4.86	439.615		
1,600.0	1,596.8	1,187.8	1,172.9	3.1	3.7	-61.12	1,727.0	1,261.7	2,154.9	2,149.7	5.21	413.924		
1,700.0	1,696.4	1,268.2	1,251.2	3.3	4.1	-61.21	1,740.0	1,274.7	2,173.2	2,167.6	5.58	389.744		
1,800.0	1,796.0	1,370.7	1,350.9	3.6	4.5	-61.32	1,757.2	1,291.3	2,191.9	2,185.9	5.98	366.254		
1,900.0	1,895.6	1,532.4	1,508.8	3.8	5.2	-61.56	1,783.2	1,314.2	2,208.9	2,202.4	6.50	339.868		
2,000.0	1,995.2	1,644.0	1,618.2	4.0	5.6	-61.67	1,798.3	1,330.3	2,223.9	2,217.0	6.94	320.481		
2,100.0	2,094.7	1,716.8	1,689.5	4.3	5.9	-61.73	1,808.2	1,341.3	2,239.5	2,232.2	7.30	306.970		
2,200.0	2,194.3	1,813.4	1,784.0	4.5	6.3	-61.86	1,823.1	1,354.8	2,255.8	2,248.1	7.69	293.234		
2,300.0	2,293.9	1,892.0	1,860.8	4.7	6.6	-61.96	1,835.2	1,366.2	2,272.5	2,264.5	8.07	281.612		
2,400.0	2,393.5	1,969.8	1,936.6	5.0	7.0	-62.00	1,846.7	1,379.6	2,290.1	2,281.7	8.45	270.865		
2,500.0	2,493.0	2,076.2	2,040.0	5.2	7.4	-62.01	1,861.6	1,399.7	2,308.2	2,299.3	8.90	259.317		
2,600.0	2,592.6	2,153.2	2,114.8	5.4	7.8	-62.01	1,872.4	1,414.4	2,326.4	2,317.1	9.29	250.400		
2,700.0	2,692.2	2,243.7	2,202.5	5.7	8.2	-62.00	1,885.4	1,432.4	2,345.2	2,335.5	9.71	241.581		
2,800.0	2,791.8	2,354.7	2,310.2	5.9	8.7	-62.00	1,901.5	1,453.9	2,364.0	2,353.8	10.17	232.527		
2,900.0	2,891.4	2,489.9	2,441.8	6.1	9.3	-62.05	1,920.8	1,478.0	2,381.5	2,370.9	10.66	223.306		
3,000.0	2,990.9	2,691.0	2,639.3	6.4	10.0	-62.15	1,943.9	1,508.0	2,394.1	2,382.8	11.30	211.873		
3,100.0	3,090.5	2,739.5	2,686.9	6.6	10.2	-62.19	1,949.9	1,515.0	2,407.9	2,396.3	11.62	207.190		
3,200.0	3,190.1	2,816.9	2,762.7	6.8	10.5	-62.23	1,960.1	1,527.2	2,423.4	2,411.4	12.01	201.794		
3,300.0	3,289.7	2,967.6	2,910.2	7.1	11.1	-62.25	1,977.4	1,552.4	2,438.2	2,425.6	12.56	194.166		
3,400.0	3,389.2	3,074.7	3,015.5	7.3	11.5	-62.29	1,988.2	1,568.4	2,450.6	2,437.6	13.00	188.442		
3,500.0	3,488.8	3,128.0	3,067.8	7.6	11.7	-62.31	1,994.6	1,576.7	2,464.9	2,451.6	13.34	184.782		
3,600.0	3,588.4	3,178.4	3,117.0	7.8	11.9	-62.34	2,001.6	1,585.0	2,481.1	2,467.5	13.66	181.577		
3,700.0	3,688.0	3,301.8	3,237.4	8.0	12.5	-62.40	2,019.2	1,605.6	2,498.3	2,484.2	14.15	176.536		
3,800.0	3,787.6	3,390.0	3,323.6	8.3	12.8	-62.42	2,030.6	1,620.3	2,514.2	2,499.7	14.56	172.708		
3,900.0	3,887.1	3,477.0	3,408.6	8.5	13.2	-62.48	2,043.0	1,634.3	2,530.8	2,515.9	14.96	169.207		
4,000.0	3,986.7	3,517.8	3,448.3	8.7	13.4	-62.50	2,049.3	1,641.3	2,548.9	2,533.7	15.27	166.892		
4,100.0	4,086.3	3,572.3	3,501.1	9.0	13.7	-62.51	2,058.1	1,651.9	2,569.0	2,553.3	15.62	164.505		
4,200.0	4,185.9	4,041.2	3,961.3	9.2	15.3	-63.01	2,119.9	1,711.8	2,583.9	2,567.1	16.73	154.486		
4,300.0	4,285.4	4,305.3	4,224.8	9.4	15.7	-63.51	2,135.9	1,721.0	2,585.8	2,568.4	17.42	148.422		
4,400.0	4,385.0	4,433.4	4,352.8	9.7	15.9	-63.76	2,140.5	1,722.9	2,585.5	2,567.7	17.87	144.672		
4,500.0	4,484.6	4,615.5	4,534.8	9.9	16.1	-64.09	2,142.0	1,724.3	2,582.2	2,563.7	18.43	140.087		
4,600.0	4,584.2	4,731.9	4,651.3	10.2	16.1	-64.30	2,141.7	1,724.2	2,577.9	2,559.1	18.87	136.637		
4,700.0	4,683.8	4,855.2	4,774.5	10.4	16.2	-64.54	2,141.0	1,723.0	2,572.9	2,553.6	19.31	133.237		
4,800.0	4,783.3	4,961.5	4,880.9	10.6	16.3	-64.76	2,140.0	1,721.3	2,567.3	2,547.5	19.73	130.112		
4,900.0	4,882.9	5,063.7	4,983.0	10.9	16.4	-64.96	2,138.6	1,719.9	2,561.5	2,541.4	20.14	127.168		
5,000.0	4,982.5	5,159.3	5,078.5	11.1	16.4	-65.15	2,137.3	1,718.7	2,555.8	2,535.3	20.54	124.421		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 4-0-7 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 71-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
5,100.0	5,082.1	5,254.6	5,173.9	11.3	16.5	-65.34	2,136.3	1,717.4	2,550.3	2,529.4	20.94	121.792	
5,200.0	5,181.7	5,349.4	5,268.7	11.6	16.6	-65.53	2,135.5	1,716.0	2,545.0	2,523.7	21.34	119.276	
5,300.0	5,281.2	5,441.7	5,360.9	11.8	16.6	-65.72	2,134.9	1,714.7	2,539.9	2,518.2	21.73	116.885	
5,400.0	5,380.8	5,531.3	5,450.5	12.0	16.7	-65.91	2,134.6	1,713.6	2,535.3	2,513.2	22.12	114.619	
5,500.0	5,480.4	5,624.6	5,543.8	12.3	16.8	-66.11	2,134.7	1,712.6	2,531.0	2,508.5	22.51	112.422	
5,600.0	5,580.0	5,721.0	5,640.3	12.5	16.9	-66.32	2,134.9	1,711.3	2,526.9	2,504.0	22.91	110.286	
5,700.0	5,679.5	5,815.9	5,735.1	12.8	17.0	-66.54	2,135.5	1,710.0	2,523.0	2,499.6	23.31	108.237	
5,800.0	5,779.1	5,910.2	5,829.4	13.0	17.1	-66.75	2,136.2	1,708.7	2,519.3	2,495.6	23.71	106.272	
5,900.0	5,878.7	6,004.6	5,923.8	13.2	17.2	-66.96	2,137.0	1,707.5	2,515.8	2,491.7	24.10	104.374	
6,000.0	5,978.3	6,096.0	6,015.2	13.5	17.3	-67.17	2,138.0	1,706.4	2,512.6	2,488.1	24.50	102.573	
6,100.0	6,077.9	6,186.4	6,105.6	13.7	17.4	-67.38	2,139.3	1,705.6	2,509.8	2,484.9	24.89	100.845	
6,200.0	6,177.4	6,274.8	6,194.0	13.9	17.5	-67.58	2,140.8	1,704.9	2,507.5	2,482.2	25.27	99.207	
6,300.0	6,277.0	6,379.9	6,299.0	14.2	17.6	-67.82	2,142.8	1,704.2	2,505.3	2,479.6	25.69	97.503	
6,400.0	6,376.6	6,485.1	6,404.2	14.4	17.7	-68.06	2,144.5	1,703.4	2,502.9	2,476.8	26.11	95.847	
6,500.0	6,476.2	6,590.7	6,509.8	14.7	17.9	-68.30	2,146.1	1,702.4	2,500.3	2,473.8	26.53	94.235	
6,600.0	6,575.7	6,686.7	6,605.8	14.9	18.0	-68.52	2,147.4	1,701.4	2,497.7	2,470.8	26.94	92.726	
6,700.0	6,675.3	6,779.1	6,698.2	15.1	18.1	-68.74	2,148.9	1,700.6	2,495.4	2,468.1	27.33	91.293	
6,800.0	6,774.9	6,886.9	6,806.0	15.4	18.2	-68.98	2,150.6	1,699.8	2,493.1	2,465.4	27.76	89.806	
6,900.0	6,874.5	6,969.0	6,888.1	15.6	18.3	-69.17	2,151.5	1,699.2	2,490.6	2,462.5	28.14	88.503	
6,949.9	6,924.1	7,026.4	6,945.5	15.7	18.4	-69.29	2,152.3	1,698.9	2,489.4	2,461.0	28.36	87.768	
7,000.0	6,974.0	7,064.4	6,983.4	15.8	18.4	-23.02	2,152.9	1,698.8	2,486.5	2,458.0	28.50	87.236	
7,050.0	7,023.4	7,102.1	7,021.2	15.9	18.5	-2.30	2,153.7	1,698.9	2,480.0	2,451.6	28.45	87.175	
7,100.0	7,072.1	7,144.0	7,063.0	16.0	18.6	7.14	2,154.8	1,699.1	2,469.9	2,441.7	28.21	87.553	
7,150.0	7,119.7	7,185.8	7,104.8	16.2	18.6	12.62	2,155.9	1,699.4	2,456.2	2,428.4	27.79	88.376	
7,200.0	7,165.9	7,232.1	7,151.1	16.3	18.7	16.51	2,157.1	1,699.7	2,438.9	2,411.6	27.22	89.600	
7,250.0	7,210.2	7,276.8	7,195.8	16.4	18.8	19.73	2,158.3	1,700.1	2,418.0	2,391.5	26.51	91.207	
7,300.0	7,252.5	7,319.6	7,238.5	16.5	18.8	22.73	2,159.5	1,700.5	2,393.8	2,368.1	25.71	93.093	
7,350.0	7,292.2	7,363.4	7,282.3	16.7	18.9	25.81	2,160.6	1,700.8	2,366.4	2,341.5	24.90	95.032	
7,400.0	7,329.2	7,404.2	7,323.1	16.8	18.9	29.15	2,161.6	1,701.1	2,336.1	2,311.9	24.17	96.663	
7,450.0	7,363.2	7,441.8	7,360.7	17.0	19.0	32.90	2,162.5	1,701.4	2,303.1	2,279.5	23.65	97.402	
7,500.0	7,393.8	7,475.8	7,394.6	17.3	19.0	37.23	2,163.3	1,701.6	2,267.7	2,244.2	23.50	96.508	
7,550.0	7,421.0	7,504.2	7,423.1	17.5	19.1	42.22	2,163.9	1,701.8	2,230.3	2,206.4	23.88	93.403	
7,600.0	7,444.3	7,526.8	7,445.7	17.8	19.1	47.96	2,164.4	1,702.0	2,191.2	2,166.3	24.88	88.077	
7,650.0	7,463.8	7,545.9	7,464.8	18.2	19.2	54.57	2,164.8	1,702.1	2,150.7	2,124.2	26.47	81.241	
7,700.0	7,479.2	7,561.3	7,480.1	18.5	19.2	61.98	2,165.2	1,702.3	2,109.2	2,080.8	28.45	74.130	
7,750.0	7,490.4	7,572.7	7,491.6	18.9	19.2	70.03	2,165.4	1,702.4	2,067.1	2,036.6	30.46	67.870	
7,800.0	7,497.4	7,580.3	7,499.1	19.3	19.2	78.35	2,165.6	1,702.4	2,024.6	1,992.5	32.09	63.098	
7,850.0	7,500.0	7,583.8	7,502.7	19.8	19.2	86.53	2,165.7	1,702.5	1,982.3	1,949.2	33.06	59.954	
7,855.2	7,500.0	7,583.9	7,502.8	19.9	19.2	87.35	2,165.7	1,702.5	1,977.9	1,944.8	33.12	59.716	
7,900.0	7,500.0	7,584.9	7,503.8	20.3	19.2	87.40	2,165.7	1,702.5	1,940.3	1,906.6	33.64	57.675	
8,000.0	7,500.0	7,587.0	7,505.9	21.3	19.2	87.52	2,165.8	1,702.5	1,857.4	1,822.5	34.87	53.268	
8,100.0	7,500.0	7,589.2	7,508.1	22.5	19.2	87.63	2,165.8	1,702.5	1,776.3	1,740.2	36.18	49.101	
8,200.0	7,500.0	7,591.4	7,510.2	23.7	19.2	87.75	2,165.9	1,702.6	1,697.3	1,659.7	37.55	45.200	
8,300.0	7,500.0	7,593.5	7,512.4	25.0	19.2	87.86	2,165.9	1,702.6	1,620.5	1,581.5	38.98	41.576	
8,400.0	7,500.0	7,595.7	7,514.6	26.3	19.2	87.98	2,166.0	1,702.6	1,546.4	1,506.0	40.45	38.232	
8,500.0	7,500.0	7,597.9	7,516.8	27.7	19.2	88.10	2,166.0	1,702.6	1,475.4	1,433.4	41.96	35.165	
8,600.0	7,500.0	7,600.1	7,518.9	29.1	19.2	88.22	2,166.1	1,702.6	1,407.9	1,364.4	43.49	32.369	
8,700.0	7,500.0	7,602.3	7,521.1	30.5	19.2	88.33	2,166.1	1,702.7	1,344.4	1,299.4	45.06	29.838	
8,800.0	7,500.0	7,604.5	7,523.3	32.0	19.2	88.45	2,166.2	1,702.7	1,285.6	1,239.0	46.64	27.563	
8,900.0	7,500.0	7,606.7	7,525.5	33.5	19.2	88.57	2,166.2	1,702.7	1,232.1	1,183.9	48.25	25.538	
9,000.0	7,500.0	7,608.9	7,527.7	35.1	19.3	88.69	2,166.3	1,702.7	1,184.6	1,134.8	49.86	23.757	
9,100.0	7,500.0	7,611.1	7,529.9	36.6	19.3	88.81	2,166.3	1,702.8	1,144.0	1,092.5	51.50	22.214	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 4-0-7 (EXISTING) - ENCANA WELL - SU												Offset Site Error:	0.0 ft
Survey Program: 71-Geolink 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
9,200.0	7,500.0	7,613.3	7,532.1	38.2	19.3	88.93	2,166.4	1,702.8	1,110.8	1,057.7	53.14	20.904	
9,300.0	7,500.0	7,615.5	7,534.3	39.8	19.3	89.05	2,166.4	1,702.8	1,085.9	1,031.1	54.79	19.818	
9,400.0	7,500.0	7,617.7	7,536.6	41.4	19.3	89.17	2,166.5	1,702.9	1,069.8	1,013.3	56.46	18.949	
9,500.0	7,500.0	7,619.9	7,538.8	43.0	19.3	89.29	2,166.5	1,702.9	1,062.9	1,004.7	58.13	18.285	
9,523.8	7,500.0	7,620.5	7,539.3	43.4	19.3	89.32	2,166.5	1,702.9	1,062.6	1,004.1	58.53	18.156 CC, ES	
9,600.0	7,500.0	7,622.2	7,541.0	44.6	19.3	89.41	2,166.6	1,702.9	1,065.3	1,005.5	59.80	17.814	
9,700.0	7,500.0	7,624.4	7,543.3	46.2	19.3	89.53	2,166.6	1,702.9	1,077.1	1,015.6	61.49	17.517	
9,800.0	7,500.0	7,626.7	7,545.5	47.9	19.3	89.65	2,166.7	1,703.0	1,097.9	1,034.7	63.18	17.378	
9,900.0	7,500.0	7,628.9	7,547.8	49.5	19.3	89.77	2,166.7	1,703.0	1,127.2	1,062.3	64.87	17.376 SF	
10,000.0	7,500.0	7,631.2	7,550.0	51.2	19.3	89.89	2,166.8	1,703.0	1,164.4	1,097.8	66.57	17.492	
10,046.2	7,500.0	7,632.2	7,551.1	51.9	19.3	89.95	2,166.8	1,703.0	1,184.0	1,116.6	67.35	17.579	
10,100.0	7,500.0	7,633.4	7,552.3	52.8	19.3	90.01	2,166.9	1,703.0	1,208.9	1,140.8	68.11	17.748	
10,200.0	7,500.0	7,635.7	7,554.5	54.5	19.3	90.14	2,166.9	1,703.1	1,261.1	1,191.6	69.52	18.140	
10,300.0	7,500.0	7,637.9	7,556.7	56.1	19.3	90.26	2,167.0	1,703.1	1,320.3	1,249.3	70.91	18.618	
10,400.0	7,500.0	7,640.1	7,558.9	57.8	19.3	90.39	2,167.0	1,703.1	1,385.4	1,313.1	72.30	19.163	
10,500.0	7,500.0	7,642.3	7,561.1	59.5	19.3	90.52	2,167.1	1,703.2	1,455.7	1,382.0	73.66	19.761	
10,600.0	7,500.0	7,644.4	7,563.3	61.1	19.3	90.66	2,167.1	1,703.2	1,530.5	1,455.4	75.02	20.401	
10,700.0	7,500.0	7,646.6	7,565.4	62.8	19.3	90.80	2,167.2	1,703.2	1,609.0	1,532.7	76.36	21.072	
10,800.0	7,500.0	7,648.7	7,567.5	64.4	19.3	90.95	2,167.2	1,703.2	1,690.9	1,613.2	77.68	21.766	
10,906.2	7,500.0	7,650.9	7,569.7	66.2	19.3	91.12	2,167.3	1,703.3	1,780.8	1,701.7	79.07	22.521	
11,000.0	7,500.0	7,652.8	7,571.7	67.7	19.3	91.24	2,167.3	1,703.3	1,862.1	1,781.4	80.69	23.077	
11,100.0	7,500.0	7,654.9	7,573.8	69.4	19.3	91.37	2,167.4	1,703.3	1,950.0	1,867.6	82.41	23.661	
11,200.0	7,500.0	7,657.0	7,575.8	71.0	19.3	91.50	2,167.4	1,703.4	2,039.0	1,954.8	84.14	24.233	
11,256.2	7,500.0	7,658.2	7,577.0	72.0	19.3	91.58	2,167.4	1,703.4	2,089.4	2,004.3	85.11	24.549	
11,300.0	7,500.0	7,659.1	7,577.9	72.7	19.3	91.61	2,167.5	1,703.4	2,128.9	2,042.8	86.05	24.739	
11,400.0	7,500.0	7,661.2	7,580.0	74.4	19.3	91.68	2,167.5	1,703.4	2,219.0	2,130.8	88.19	25.162	
11,500.0	7,500.0	7,663.3	7,582.2	76.1	19.3	91.74	2,167.6	1,703.5	2,309.3	2,219.0	90.31	25.572	
11,600.0	7,500.0	7,667.0	7,585.8	77.8	19.3	91.88	2,167.6	1,703.5	2,399.6	2,307.2	92.40	25.969	
11,700.0	7,500.0	7,667.8	7,586.6	79.5	19.3	91.85	2,167.7	1,703.5	2,489.9	2,395.4	94.48	26.354	
11,800.0	7,500.0	7,670.1	7,588.9	81.2	19.3	91.91	2,167.7	1,703.6	2,580.2	2,483.6	96.53	26.728	
11,900.0	7,500.0	7,672.5	7,591.3	82.9	19.4	91.96	2,167.8	1,703.6	2,670.4	2,571.9	98.56	27.093	
12,000.0	7,500.0	7,674.9	7,593.7	84.7	19.4	92.00	2,167.8	1,703.6	2,760.6	2,660.1	100.57	27.450	
12,100.0	7,500.0	7,677.3	7,596.1	86.4	19.4	92.04	2,167.9	1,703.7	2,850.8	2,748.2	102.56	27.797	
12,169.2	7,500.0	7,679.0	7,597.8	87.6	19.4	92.07	2,167.9	1,703.7	2,913.1	2,809.1	103.92	28.033	
12,200.0	7,500.0	7,679.7	7,598.6	88.1	19.4	92.10	2,168.0	1,703.7	2,940.8	2,836.4	104.45	28.156	
12,300.0	7,500.0	7,682.2	7,601.0	89.8	19.4	92.21	2,168.0	1,703.7	3,031.3	2,925.2	106.18	28.549	
12,400.0	7,500.0	7,684.7	7,603.5	91.6	19.4	92.32	2,168.1	1,703.8	3,122.4	3,014.5	107.91	28.936	
12,500.0	7,500.0	7,687.1	7,605.9	93.3	19.4	92.43	2,168.1	1,703.8	3,214.0	3,104.4	109.64	29.314	
12,600.0	7,500.0	7,689.6	7,608.4	95.0	19.4	92.55	2,168.2	1,703.8	3,306.1	3,194.8	111.37	29.686	
12,700.0	7,500.0	7,692.0	7,610.9	96.8	19.4	92.66	2,168.2	1,703.9	3,398.7	3,285.6	113.10	30.050	
12,800.0	7,500.0	7,694.5	7,613.3	98.5	19.4	92.77	2,168.3	1,703.9	3,491.6	3,376.8	114.83	30.407	
12,900.0	7,500.0	7,697.0	7,615.8	100.2	19.4	92.88	2,168.4	1,703.9	3,585.0	3,468.4	116.56	30.756	
13,000.0	7,500.0	7,699.5	7,618.3	102.0	19.4	92.99	2,168.4	1,704.0	3,678.6	3,560.4	118.29	31.098	
13,100.0	7,500.0	7,701.9	7,620.7	103.7	19.4	93.10	2,168.5	1,704.0	3,772.7	3,652.6	120.02	31.433	
13,200.0	7,500.0	7,704.4	7,623.2	105.4	19.4	93.21	2,168.5	1,704.0	3,867.0	3,745.2	121.75	31.761	
13,300.0	7,500.0	7,706.9	7,625.7	107.2	19.4	93.32	2,168.6	1,704.1	3,961.5	3,838.1	123.48	32.083	
13,400.0	7,500.0	7,709.3	7,628.2	108.9	19.4	93.43	2,168.7	1,704.1	4,056.4	3,931.2	125.21	32.397	
13,500.0	7,500.0	7,711.8	7,630.6	110.7	19.4	93.55	2,168.7	1,704.1	4,151.5	4,024.5	126.94	32.705	
13,600.0	7,500.0	7,714.3	7,633.1	112.4	19.4	93.66	2,168.8	1,704.2	4,246.8	4,118.1	128.66	33.007	
13,700.0	7,500.0	7,716.8	7,635.6	114.1	19.4	93.77	2,168.8	1,704.2	4,342.3	4,211.9	130.39	33.302	
13,800.0	7,500.0	7,719.3	7,638.1	115.9	19.4	93.88	2,168.9	1,704.3	4,438.0	4,305.9	132.12	33.591	
13,900.0	7,500.0	7,721.7	7,640.6	117.6	19.4	93.99	2,169.0	1,704.3	4,533.9	4,400.0	133.84	33.875	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design										S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY 4-0-7 (EXISTING) - ENCANA WELL - SU				Offset Site Error:		0.0 ft
Survey Program: 71-Geolink MWD														Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance									
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	Centre +E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)						
14,000.0	7,500.0	7,724.2	7,643.0	119.4	19.4	94.10	2,169.0	1,704.3	4,629.9	4,494.4	135.57	34.152				
14,100.0	7,500.0	7,726.7	7,645.5	121.1	19.4	94.21	2,169.1	1,704.4	4,726.2	4,588.9	137.29	34.424				
14,200.0	7,500.0	7,729.2	7,648.0	122.8	19.4	94.33	2,169.1	1,704.4	4,822.6	4,683.5	139.02	34.691				
14,300.0	7,500.0	7,731.7	7,650.5	124.6	19.4	94.44	2,169.2	1,704.4	4,919.1	4,778.3	140.74	34.952				
14,400.0	7,500.0	7,734.2	7,653.0	126.3	19.4	94.55	2,169.3	1,704.5	5,015.7	4,873.3	142.46	35.208				
14,455.0	7,500.0	7,735.6	7,654.4	127.3	19.4	94.61	2,169.3	1,704.5	5,069.0	4,925.6	143.41	35.346				

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL											Offset Site Error: 0.0 ft		
Survey Program: 100-Geolink 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	33.3	33.3	0.0	0.1	43.93	801.4	772.0	1,112.8				
100.0	100.0	122.8	122.7	0.2	0.2	43.96	801.6	773.0	1,113.7	1,113.4	0.37	3,028.651	
200.0	200.0	221.2	221.2	0.3	0.4	44.02	801.9	774.9	1,115.3	1,114.6	0.72	1,558.228	
300.0	300.0	333.1	333.0	0.5	0.6	44.06	802.1	776.2	1,116.2	1,115.1	1.09	1,028.602	
400.0	400.0	436.3	436.2	0.7	0.8	44.06	802.2	776.4	1,116.4	1,114.9	1.44	775.641	
500.0	500.0	535.8	535.8	0.8	0.9	44.05	802.6	776.3	1,116.7	1,114.9	1.79	624.713	
600.0	600.0	639.6	639.6	1.0	1.1	-52.40	802.7	776.2	1,116.1	1,113.9	2.14	521.117	
700.0	700.0	744.2	744.2	1.2	1.3	-52.53	802.7	775.9	1,114.3	1,111.8	2.50	445.653	
800.0	799.9	848.0	847.9	1.4	1.5	-52.79	802.5	774.7	1,110.7	1,107.9	2.86	388.275	
900.0	899.7	947.8	947.7	1.6	1.7	-53.13	802.7	773.4	1,106.2	1,103.0	3.22	343.544	
1,000.0	999.4	1,049.4	1,049.4	1.8	1.8	-53.55	802.4	772.1	1,100.5	1,096.9	3.59	306.473	
1,026.5	1,025.7	1,075.6	1,075.5	1.8	1.9	-53.67	802.3	771.8	1,098.8	1,095.1	3.69	297.873	
1,100.0	1,098.9	1,150.4	1,150.3	2.0	2.0	-53.98	802.0	770.9	1,094.0	1,090.0	3.97	275.754	
1,200.0	1,198.5	1,251.7	1,251.6	2.2	2.2	-54.43	801.7	769.2	1,087.2	1,082.9	4.35	250.010	
1,300.0	1,298.1	1,347.6	1,347.5	2.4	2.4	-54.88	801.6	767.4	1,080.6	1,075.9	4.72	228.728	
1,400.0	1,397.7	1,442.6	1,442.5	2.7	2.5	-55.33	801.9	766.0	1,074.6	1,069.5	5.10	210.649	
1,500.0	1,497.3	1,542.8	1,542.7	2.9	2.7	-55.82	802.4	764.4	1,068.7	1,063.3	5.49	194.677	
1,600.0	1,596.8	1,641.4	1,641.3	3.1	2.9	-56.30	802.8	762.8	1,062.8	1,057.0	5.88	180.825	
1,700.0	1,696.4	1,736.1	1,736.0	3.3	3.0	-56.77	803.5	761.5	1,057.4	1,051.2	6.26	168.904	
1,800.0	1,796.0	1,835.1	1,835.0	3.6	3.2	-57.27	804.5	760.2	1,052.3	1,045.7	6.65	158.169	
1,900.0	1,895.6	1,933.4	1,933.3	3.8	3.4	-57.78	805.5	758.8	1,047.3	1,040.3	7.05	148.627	
2,000.0	1,995.2	2,027.6	2,027.4	4.0	3.6	-58.29	806.9	757.4	1,042.7	1,035.3	7.43	140.259	
2,100.0	2,094.7	2,120.0	2,119.8	4.3	3.7	-58.78	808.6	756.6	1,038.8	1,031.0	7.82	132.846	
2,200.0	2,194.3	2,215.6	2,215.3	4.5	3.9	-59.29	810.8	756.1	1,035.5	1,027.3	8.21	126.098	
2,300.0	2,293.9	2,314.6	2,314.3	4.7	4.1	-59.82	813.1	755.8	1,032.6	1,024.0	8.61	119.905	
2,400.0	2,393.5	2,419.5	2,419.2	5.0	4.2	-60.36	815.2	755.6	1,029.5	1,020.4	9.02	114.096	
2,500.0	2,493.0	2,523.5	2,523.2	5.2	4.4	-60.88	816.5	755.4	1,025.9	1,016.5	9.43	108.768	
2,600.0	2,592.6	2,624.9	2,624.6	5.4	4.6	-61.38	817.6	755.1	1,022.1	1,012.3	9.84	103.902	
2,700.0	2,692.2	2,726.3	2,726.0	5.7	4.8	-61.89	818.4	754.7	1,018.2	1,008.0	10.24	99.394	
2,800.0	2,791.8	2,825.4	2,825.1	5.9	5.0	-62.38	819.2	754.3	1,014.4	1,003.7	10.65	95.273	
2,900.0	2,891.4	2,927.6	2,927.2	6.1	5.1	-62.90	820.0	753.7	1,010.5	999.4	11.06	91.382	
3,000.0	2,990.9	3,027.9	3,027.5	6.4	5.3	-63.46	821.0	752.6	1,006.5	995.0	11.47	87.774	
3,100.0	3,090.5	3,129.0	3,128.6	6.6	5.5	-64.02	821.9	751.4	1,002.5	990.6	11.88	84.398	
3,200.0	3,190.1	3,230.2	3,229.8	6.8	5.7	-64.59	822.6	749.9	998.4	986.1	12.29	81.226	
3,300.0	3,289.7	3,327.3	3,327.0	7.1	5.8	-65.16	823.5	748.3	994.4	981.7	12.70	78.308	
3,400.0	3,389.2	3,422.4	3,422.0	7.3	6.0	-65.72	824.7	747.0	990.9	977.8	13.10	75.627	
3,500.0	3,488.8	3,517.6	3,517.2	7.6	6.2	-66.26	825.9	746.1	987.8	974.3	13.51	73.144	
3,600.0	3,588.4	3,609.0	3,608.6	7.8	6.3	-66.77	827.6	745.8	985.6	971.7	13.90	70.891	
3,700.0	3,688.0	3,700.8	3,700.3	8.0	6.5	-67.29	829.9	745.8	984.2	969.9	14.30	68.822	
3,800.0	3,787.6	3,809.0	3,808.5	8.3	6.7	-67.91	832.7	745.6	982.9	968.1	14.73	66.720	
3,900.0	3,887.1	3,918.2	3,917.7	8.5	6.9	-68.54	834.6	745.0	980.7	965.5	15.16	64.675	
4,000.0	3,986.7	4,024.8	4,024.3	8.7	7.1	-69.14	835.6	744.1	977.8	962.2	15.59	62.718	
4,100.0	4,086.3	4,132.5	4,131.9	9.0	7.3	-69.79	835.8	742.3	974.0	958.0	16.02	60.788	
4,200.0	4,185.9	4,229.8	4,229.2	9.2	7.4	-70.41	836.2	740.2	970.3	953.8	16.44	59.030	
4,300.0	4,285.4	4,330.5	4,329.9	9.4	7.6	-71.01	836.3	738.5	966.6	949.7	16.86	57.342	
4,400.0	4,385.0	4,428.5	4,427.9	9.7	7.8	-71.59	836.3	737.1	963.0	945.8	17.27	55.761	
4,500.0	4,484.6	4,524.8	4,524.2	9.9	8.0	-72.23	836.9	734.9	959.7	942.1	17.69	54.265	
4,600.0	4,584.2	4,616.6	4,615.9	10.2	8.1	-72.87	838.3	732.5	957.3	939.2	18.09	52.909	
4,700.0	4,683.8	4,721.9	4,721.3	10.4	8.3	-73.57	839.6	730.4	955.0	936.5	18.53	51.548	
4,800.0	4,783.3	4,824.5	4,823.8	10.6	8.5	-74.25	840.4	728.3	952.4	933.4	18.95	50.249	
4,900.0	4,882.9	4,928.3	4,927.5	10.9	8.7	-74.88	840.4	726.9	949.4	930.0	19.38	48.993	
5,000.0	4,982.5	5,028.2	5,027.5	11.1	8.8	-75.48	840.0	725.7	946.2	926.4	19.80	47.795	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink 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		
5,100.0	5,082.1	5,122.6	5,121.9	11.3	9.0	-76.07	840.1	724.3	943.6	923.3	20.21	46.691		
5,200.0	5,181.7	5,222.3	5,221.6	11.6	9.2	-76.72	840.6	722.4	941.2	920.6	20.63	45.622		
5,300.0	5,281.2	5,322.3	5,321.6	11.8	9.4	-77.40	841.0	720.3	938.8	917.8	21.05	44.592		
5,400.0	5,380.8	5,415.9	5,415.1	12.0	9.5	-77.99	841.6	719.1	937.0	915.6	21.46	43.660		
5,500.0	5,480.4	5,519.6	5,518.8	12.3	9.7	-78.64	842.0	718.0	935.3	913.4	21.89	42.728		
5,600.0	5,580.0	5,617.2	5,616.4	12.5	9.9	-79.25	842.5	716.8	933.6	911.3	22.31	41.855		
5,700.0	5,679.5	5,718.5	5,717.6	12.8	10.1	-79.92	843.1	715.1	932.0	909.3	22.73	41.004		
5,800.0	5,779.1	5,820.2	5,819.3	13.0	10.2	-80.62	843.6	713.0	930.3	907.1	23.16	40.175		
5,900.0	5,878.7	5,917.6	5,916.8	13.2	10.4	-81.30	844.0	710.9	928.7	905.2	23.57	39.397		
6,000.0	5,978.3	6,018.0	6,017.1	13.5	10.6	-81.98	844.6	708.9	927.4	903.4	24.00	38.648		
6,100.0	6,077.9	6,123.8	6,122.9	13.7	10.8	-82.73	844.6	706.5	925.7	901.2	24.43	37.892		
6,200.0	6,177.4	6,222.7	6,221.8	13.9	11.0	-83.43	844.5	704.0	923.8	899.0	24.85	37.177		
6,300.0	6,277.0	6,320.6	6,319.6	14.2	11.1	-84.12	844.4	701.7	922.2	897.0	25.27	36.500		
6,400.0	6,376.6	6,416.4	6,415.4	14.4	11.3	-84.78	844.4	699.9	921.0	895.3	25.68	35.867		
6,486.8	6,463.1	6,495.0	6,494.0	14.6	11.4	-85.33	845.0	698.3	920.6	894.6	26.03	35.369		
6,500.0	6,476.2	6,507.9	6,506.9	14.7	11.5	-85.42	845.2	698.0	920.6	894.5	26.08	35.296		
6,600.0	6,575.7	6,611.3	6,610.2	14.9	11.6	-86.11	846.0	696.5	920.5	894.0	26.51	34.728		
6,700.0	6,675.3	6,710.0	6,708.9	15.1	11.8	-86.76	846.7	695.2	920.4	893.4	26.92	34.189		
6,800.0	6,774.9	6,814.5	6,813.5	15.4	12.0	-87.44	847.1	693.9	920.1	892.7	27.34	33.649		
6,900.0	6,874.5	6,914.4	6,913.3	15.6	12.2	-88.12	847.3	692.2	919.6	891.9	27.76	33.127		
6,949.9	6,924.1	6,962.3	6,961.2	15.7	12.3	-88.46	847.4	691.1	919.5	891.5	27.96	32.880		
7,000.0	6,974.0	7,011.6	7,010.5	15.8	12.3	-42.56	847.7	690.0	917.3	889.2	28.09	32.658		
7,050.0	7,023.4	7,064.8	7,063.7	15.9	12.4	-22.34	847.8	688.9	910.7	882.6	28.05	32.462		
7,100.0	7,072.1	7,116.2	7,115.1	16.0	12.5	-13.52	847.7	688.1	899.7	871.8	27.86	32.295		
7,150.0	7,119.7	7,164.5	7,163.4	16.2	12.6	-8.82	847.5	687.2	884.4	856.9	27.50	32.162		
7,200.0	7,165.9	7,211.8	7,210.7	16.3	12.7	-5.93	847.3	686.0	865.0	838.0	26.98	32.056		
7,250.0	7,210.2	7,259.1	7,257.9	16.4	12.8	-3.95	847.0	684.6	841.6	815.3	26.33	31.965		
7,300.0	7,252.5	7,305.2	7,304.0	16.5	12.9	-2.45	846.6	683.1	814.3	788.8	25.54	31.885		
7,350.0	7,292.2	7,362.1	7,360.9	16.7	13.0	-1.26	845.2	680.9	783.0	758.3	24.65	31.763		
7,400.0	7,329.2	7,414.0	7,412.7	16.8	13.1	-0.14	842.8	678.6	747.6	723.9	23.65	31.611		
7,450.0	7,363.2	7,462.0	7,460.5	17.0	13.1	1.21	839.5	677.5	708.5	686.0	22.56	31.410		
7,500.0	7,393.8	7,500.0	7,498.4	17.3	13.2	3.09	835.9	677.5	666.4	645.0	21.40	31.134		
7,550.0	7,421.0	7,518.0	7,516.3	17.5	13.2	5.51	834.1	677.7	622.0	601.7	20.24	30.732		
7,600.0	7,444.3	7,532.7	7,530.9	17.8	13.3	8.96	832.8	678.0	576.0	556.8	19.20	29.999		
7,650.0	7,463.8	7,544.7	7,542.9	18.2	13.3	14.44	831.8	678.3	528.6	510.0	18.57	28.470		
7,700.0	7,479.2	7,553.9	7,552.0	18.5	13.3	24.18	831.1	678.5	480.2	461.0	19.15	25.069		
7,750.0	7,490.4	7,560.0	7,558.1	18.9	13.3	43.45	830.6	678.7	431.0	408.1	22.89	18.832		
7,800.0	7,497.4	7,562.7	7,560.8	19.3	13.3	77.68	830.4	678.7	381.5	352.7	28.78	13.256		
7,850.0	7,500.0	7,561.9	7,560.0	19.8	13.3	110.14	830.5	678.7	332.0	303.7	28.34	11.715		
7,855.2	7,500.0	7,561.6	7,559.7	19.9	13.3	112.54	830.5	678.7	326.9	298.9	28.04	11.659		
7,900.0	7,500.0	7,558.9	7,557.0	20.3	13.3	109.92	830.7	678.6	282.9	254.0	28.89	9.791		
8,000.0	7,500.0	7,552.2	7,550.3	21.3	13.3	103.31	831.2	678.5	185.7	154.9	30.83	6.024		
8,100.0	7,500.0	7,544.9	7,543.1	22.5	13.3	95.57	831.8	678.3	94.2	61.5	32.69	2.882		
8,178.9	7,500.0	7,538.6	7,536.8	23.4	13.3	88.69	832.3	678.1	51.8	17.9	33.91	1.528 CC, ES, SF		
8,200.0	7,500.0	7,536.9	7,535.1	23.7	13.3	86.76	832.5	678.1	55.9	21.7	34.18	1.636		
8,300.0	7,500.0	7,528.0	7,526.2	25.0	13.2	77.13	833.2	677.9	131.3	96.3	35.00	3.750		
8,400.0	7,500.0	7,518.1	7,516.4	26.3	13.2	67.17	834.1	677.8	226.2	191.3	34.96	6.471		
8,500.0	7,500.0	7,507.0	7,505.3	27.7	13.2	57.48	835.2	677.6	323.9	289.8	34.06	9.509		
8,600.0	7,500.0	7,500.0	7,498.4	29.1	13.2	52.20	835.9	677.5	422.4	388.7	33.75	12.517		
8,700.0	7,500.0	7,500.0	7,498.4	30.5	13.2	52.20	835.9	677.5	521.5	486.5	34.96	14.915		
8,800.0	7,500.0	7,481.6	7,480.0	32.0	13.2	41.33	837.7	677.4	620.5	588.5	32.00	19.387		
8,900.0	7,500.0	7,474.9	7,473.4	33.5	13.2	38.29	838.4	677.4	719.7	688.0	31.71	22.698		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - WOOLLEY F UNIT 1 (EXISTING) - ENCANA WELL													Offset Site Error: 0.0 ft	
Survey Program: 100-Geolink 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		
9,000.0	7,500.0	7,468.8	7,467.3	35.1	13.2	35.81	838.9	677.4	819.1	787.6	31.53	25.983		
9,100.0	7,500.0	7,463.1	7,461.6	36.6	13.1	33.75	839.4	677.5	918.6	887.2	31.44	29.219		
9,200.0	7,500.0	7,457.7	7,456.3	38.2	13.1	32.02	839.8	677.5	1,018.1	986.7	31.43	32.394		
9,300.0	7,500.0	7,452.8	7,451.3	39.8	13.1	30.55	840.2	677.6	1,117.7	1,086.2	31.49	35.498		
9,400.0	7,500.0	7,448.1	7,446.7	41.4	13.1	29.29	840.6	677.7	1,217.3	1,185.7	31.60	38.526		
9,500.0	7,500.0	7,443.7	7,442.3	43.0	13.1	28.20	840.9	677.8	1,317.0	1,285.2	31.75	41.475		
9,600.0	7,500.0	7,439.6	7,438.2	44.6	13.1	27.25	841.2	677.9	1,416.6	1,384.7	31.95	44.344		
9,700.0	7,500.0	7,435.7	7,434.3	46.2	13.1	26.41	841.5	677.9	1,516.3	1,484.2	32.17	47.133		
9,800.0	7,500.0	7,432.0	7,430.6	47.9	13.1	25.67	841.7	678.0	1,616.0	1,583.6	32.42	49.843		
9,900.0	7,500.0	7,428.6	7,427.2	49.5	13.1	25.01	842.0	678.1	1,715.8	1,683.1	32.70	52.475		
10,000.0	7,500.0	7,425.3	7,423.9	51.2	13.1	24.42	842.2	678.2	1,815.5	1,782.5	32.99	55.032		
10,046.2	7,500.0	7,400.0	7,398.7	51.9	13.0	20.74	843.6	679.2	1,861.9	1,831.2	30.67	60.705		
10,100.0	7,500.0	7,400.0	7,398.7	52.8	13.0	14.13	843.6	679.2	1,915.6	1,889.0	26.58	72.070		
10,200.0	7,500.0	7,400.0	7,398.7	54.5	13.0	0.35	843.6	679.2	2,015.3	1,993.5	21.81	92.406		
10,300.0	7,500.0	7,400.0	7,398.7	56.1	13.0	-14.15	843.6	679.2	2,115.1	2,087.9	27.20	77.746		
10,400.0	7,500.0	7,400.0	7,398.7	57.8	13.0	-27.59	843.6	679.2	2,214.8	2,177.0	37.88	58.467		
10,500.0	7,500.0	7,400.0	7,398.7	59.5	13.0	-38.85	843.6	679.2	2,314.6	2,266.8	47.81	48.413		
10,600.0	7,500.0	7,400.0	7,398.7	61.1	13.0	-47.75	843.6	679.2	2,414.2	2,358.7	55.57	43.446		
10,700.0	7,500.0	7,400.0	7,398.7	62.8	13.0	-54.62	843.6	679.2	2,513.8	2,452.4	61.41	40.938		
10,800.0	7,500.0	7,400.0	7,398.7	64.4	13.0	-59.94	843.6	679.2	2,613.3	2,547.4	65.86	39.679		
10,906.2	7,500.0	7,400.0	7,398.7	66.2	13.0	-64.33	843.6	679.2	2,718.8	2,649.2	69.58	39.075		
11,000.0	7,500.0	7,400.0	7,398.7	67.7	13.0	-64.33	843.6	679.2	2,812.0	2,741.0	71.04	39.582		
11,100.0	7,500.0	7,400.0	7,398.7	69.4	13.0	-64.33	843.6	679.2	2,911.4	2,838.8	72.60	40.100		
11,200.0	7,500.0	7,400.0	7,398.7	71.0	13.0	-64.33	843.6	679.2	3,010.8	2,936.6	74.16	40.596		
11,256.2	7,500.0	7,400.0	7,398.7	72.0	13.0	-64.33	843.6	679.2	3,066.6	2,991.6	75.04	40.865		
11,300.0	7,500.0	7,400.0	7,398.7	72.7	13.0	-62.38	843.6	679.2	3,110.2	3,035.5	74.72	41.624		
11,400.0	7,500.0	7,400.0	7,398.7	74.4	13.0	-56.61	843.6	679.2	3,209.9	3,137.2	72.63	44.192		
11,500.0	7,500.0	7,400.0	7,398.7	76.1	13.0	-47.98	843.6	679.2	3,309.6	3,242.4	67.21	49.246		
11,600.0	7,500.0	7,400.0	7,398.7	77.8	13.0	-34.59	843.6	679.2	3,409.4	3,354.3	55.16	61.808		
11,700.0	7,500.0	7,400.0	7,398.7	79.5	13.0	-14.39	843.6	679.2	3,509.3	3,475.6	33.76	103.953		
11,800.0	7,500.0	7,400.0	7,398.7	81.2	13.0	10.70	843.6	679.2	3,609.3	3,578.4	30.85	117.001		
11,900.0	7,500.0	7,400.0	7,398.7	82.9	13.0	32.90	843.6	679.2	3,709.2	3,652.5	56.64	65.491		
12,000.0	7,500.0	7,400.0	7,398.7	84.7	13.0	48.17	843.6	679.2	3,809.1	3,734.3	74.73	50.971		
12,100.0	7,500.0	7,400.0	7,398.7	86.4	13.0	57.99	843.6	679.2	3,908.9	3,823.6	85.25	45.850		
12,169.2	7,500.0	7,400.0	7,398.7	87.6	13.0	62.74	843.6	679.2	3,977.9	3,887.8	90.06	44.168		
12,200.0	7,500.0	7,400.0	7,398.7	88.1	13.0	62.74	843.6	679.2	4,008.6	3,918.1	90.54	44.276		
12,300.0	7,500.0	7,400.0	7,398.7	89.8	13.0	62.74	843.6	679.2	4,108.3	4,016.2	92.08	44.616		
12,400.0	7,500.0	7,400.0	7,398.7	91.6	13.0	62.74	843.6	679.2	4,208.1	4,114.4	93.63	44.945		
12,500.0	7,500.0	7,400.0	7,398.7	93.3	13.0	62.74	843.6	679.2	4,307.8	4,212.6	95.17	45.263		
12,600.0	7,500.0	7,400.0	7,398.7	95.0	13.0	62.74	843.6	679.2	4,407.6	4,310.8	96.72	45.571		
12,700.0	7,500.0	7,400.0	7,398.7	96.8	13.0	62.74	843.6	679.2	4,507.3	4,409.1	98.26	45.869		
12,800.0	7,500.0	7,400.0	7,398.7	98.5	13.0	62.74	843.6	679.2	4,607.1	4,507.3	99.81	46.158		
12,900.0	7,500.0	7,400.0	7,398.7	100.2	13.0	62.74	843.6	679.2	4,706.9	4,605.5	101.36	46.438		
13,000.0	7,500.0	7,400.0	7,398.7	102.0	13.0	62.74	843.6	679.2	4,806.7	4,703.8	102.91	46.709		
13,100.0	7,500.0	7,366.5	7,365.2	103.7	13.0	57.56	845.0	680.7	4,906.2	4,806.6	99.59	49.261		
13,200.0	7,500.0	7,365.2	7,363.9	105.4	13.0	57.37	845.1	680.7	5,005.9	4,905.1	100.87	49.626		
13,300.0	7,500.0	7,363.9	7,362.7	107.2	13.0	57.19	845.1	680.8	5,105.7	5,003.6	102.15	49.981		
13,400.0	7,500.0	7,362.7	7,361.5	108.9	13.0	57.02	845.2	680.8	5,205.5	5,102.1	103.43	50.328		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2A-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-29.9	29.9				
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-29.9	29.9	29.6	0.30	98.612	
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-29.9	29.9	29.3	0.65	45.878 CC, ES	
300.0	300.0	299.5	299.5	0.5	0.5	-90.81	-0.4	-30.7	30.7	29.7	1.00	30.647	
400.0	400.0	399.0	399.0	0.7	0.7	-93.00	-1.7	-32.9	33.0	31.6	1.35	24.364	
500.0	500.0	498.4	498.2	0.8	0.9	-96.05	-3.9	-36.7	36.9	35.2	1.71	21.533	
600.0	600.0	597.5	597.2	1.0	1.1	164.56	-6.9	-41.9	43.4	41.3	2.05	21.161	
700.0	700.0	697.2	696.7	1.2	1.3	163.46	-9.5	-47.9	52.3	49.9	2.40	21.824	
800.0	799.9	796.7	795.9	1.4	1.5	164.28	-10.9	-54.0	62.8	60.0	2.74	22.870	
900.0	899.7	895.9	895.0	1.6	1.7	165.26	-12.3	-60.1	74.9	71.8	3.09	24.228	
1,000.0	999.4	995.0	993.8	1.8	1.9	166.22	-13.6	-66.2	88.7	85.3	3.44	25.810	
1,026.5	1,025.7	1,021.1	1,020.0	1.8	1.9	166.47	-14.0	-67.8	92.7	89.1	3.53	26.260	
1,100.0	1,098.9	1,093.8	1,092.5	2.0	2.1	167.10	-14.9	-72.2	103.8	100.0	3.79	27.419	
1,200.0	1,198.5	1,192.6	1,191.1	2.2	2.3	167.77	-16.3	-78.3	118.9	114.8	4.13	28.768	
1,300.0	1,298.1	1,291.5	1,289.8	2.4	2.5	168.29	-17.6	-84.3	134.1	129.6	4.48	29.911	
1,400.0	1,397.7	1,390.3	1,388.4	2.7	2.7	168.71	-18.9	-90.4	149.3	144.4	4.83	30.890	
1,500.0	1,497.3	1,489.2	1,487.1	2.9	2.9	169.04	-20.3	-96.4	164.4	159.2	5.18	31.739	
1,600.0	1,596.8	1,588.0	1,585.7	3.1	3.1	169.32	-21.6	-102.5	179.6	174.1	5.53	32.482	
1,700.0	1,696.4	1,686.8	1,684.3	3.3	3.3	169.56	-22.9	-108.5	194.8	188.9	5.88	33.138	
1,800.0	1,796.0	1,785.7	1,783.0	3.6	3.5	169.76	-24.3	-114.6	210.0	203.7	6.23	33.721	
1,900.0	1,895.6	1,884.5	1,881.6	3.8	3.7	169.94	-25.6	-120.6	225.2	218.6	6.58	34.242	
2,000.0	1,995.2	1,983.3	1,980.3	4.0	3.9	170.09	-26.9	-126.7	240.3	233.4	6.92	34.711	
2,100.0	2,094.7	2,082.2	2,078.9	4.3	4.1	170.23	-28.3	-132.7	255.5	248.3	7.27	35.136	
2,200.0	2,194.3	2,181.0	2,177.6	4.5	4.3	170.35	-29.6	-138.8	270.7	263.1	7.62	35.522	
2,300.0	2,293.9	2,279.9	2,276.2	4.7	4.5	170.45	-30.9	-144.8	285.9	278.0	7.97	35.874	
2,400.0	2,393.5	2,378.7	2,374.8	5.0	4.7	170.55	-32.3	-150.9	301.1	292.8	8.32	36.197	
2,500.0	2,493.0	2,477.5	2,473.5	5.2	4.9	170.64	-33.6	-156.9	316.3	307.6	8.67	36.494	
2,600.0	2,592.6	2,576.4	2,572.1	5.4	5.1	170.71	-34.9	-163.0	331.5	322.5	9.02	36.768	
2,700.0	2,692.2	2,675.2	2,670.8	5.7	5.3	170.79	-36.3	-169.0	346.7	337.3	9.36	37.022	
2,800.0	2,791.8	2,774.0	2,769.4	5.9	5.5	170.85	-37.6	-175.1	361.9	352.2	9.71	37.258	
2,900.0	2,891.4	2,872.9	2,868.1	6.1	5.7	170.91	-38.9	-181.1	377.1	367.0	10.06	37.478	
3,000.0	2,990.9	2,971.7	2,966.7	6.4	5.9	170.97	-40.3	-187.2	392.3	381.9	10.41	37.682	
3,100.0	3,090.5	3,070.6	3,065.4	6.6	6.1	171.02	-41.6	-193.2	407.5	396.7	10.76	37.874	
3,200.0	3,190.1	3,169.4	3,164.0	6.8	6.3	171.07	-42.9	-199.3	422.7	411.6	11.11	38.054	
3,300.0	3,289.7	3,268.2	3,262.6	7.1	6.5	171.11	-44.3	-205.3	437.9	426.4	11.46	38.222	
3,400.0	3,389.2	3,367.1	3,361.3	7.3	6.7	171.16	-45.6	-211.4	453.1	441.3	11.80	38.381	
3,500.0	3,488.8	3,465.9	3,459.9	7.6	6.9	171.19	-46.9	-217.4	468.3	456.1	12.15	38.531	
3,600.0	3,588.4	3,564.7	3,558.6	7.8	7.1	171.23	-48.3	-223.5	483.5	471.0	12.50	38.672	
3,700.0	3,688.0	3,663.6	3,657.2	8.0	7.3	171.27	-49.6	-229.5	498.7	485.8	12.85	38.806	
3,800.0	3,787.6	3,762.4	3,755.9	8.3	7.5	171.30	-50.9	-235.6	513.9	500.7	13.20	38.933	
3,900.0	3,887.1	3,861.3	3,854.5	8.5	7.8	171.33	-52.3	-241.6	529.1	515.5	13.55	39.053	
4,000.0	3,986.7	3,960.1	3,953.1	8.7	8.0	171.36	-53.6	-247.7	544.3	530.4	13.90	39.167	
4,100.0	4,086.3	4,058.9	4,051.8	9.0	8.2	171.38	-54.9	-253.7	559.5	545.2	14.24	39.276	
4,200.0	4,185.9	4,157.8	4,150.4	9.2	8.4	171.41	-56.3	-259.8	574.7	560.1	14.59	39.379	
4,300.0	4,285.4	4,256.6	4,249.1	9.4	8.6	171.43	-57.6	-265.8	589.9	574.9	14.94	39.478	
4,400.0	4,385.0	4,355.4	4,347.7	9.7	8.8	171.46	-58.9	-271.9	605.1	589.8	15.29	39.572	
4,500.0	4,484.6	4,454.3	4,446.4	9.9	9.0	171.48	-60.2	-277.9	620.3	604.6	15.64	39.662	
4,600.0	4,584.2	4,553.1	4,545.0	10.2	9.2	171.50	-61.6	-284.0	635.5	619.5	15.99	39.748	
4,700.0	4,683.8	4,652.0	4,643.6	10.4	9.4	171.52	-62.9	-290.0	650.7	634.3	16.34	39.830	
4,800.0	4,783.3	4,750.8	4,742.3	10.6	9.6	171.54	-64.2	-296.1	665.9	649.2	16.68	39.909	
4,900.0	4,882.9	4,849.6	4,840.9	10.9	9.8	171.56	-65.6	-302.1	681.1	664.0	17.03	39.985	
5,000.0	4,982.5	4,948.5	4,939.6	11.1	10.0	171.58	-66.9	-308.2	696.3	678.9	17.38	40.057	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2A-7H-E168 - Hz - Plan #2											Offset Site Error: 0.0 ft		
Survey Program: 0-Geolink 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	
5,100.0	5,082.1	5,047.3	5,038.2	11.3	10.2	171.59	-68.2	-314.2	711.5	693.7	17.73	40.127	
5,200.0	5,181.7	5,146.2	5,136.9	11.6	10.4	171.61	-69.6	-320.3	726.7	708.6	18.08	40.194	
5,300.0	5,281.2	5,245.0	5,235.5	11.8	10.6	171.62	-70.9	-326.3	741.9	723.4	18.43	40.259	
5,400.0	5,380.8	5,343.8	5,334.2	12.0	10.8	171.64	-72.2	-332.4	757.1	738.3	18.78	40.321	
5,500.0	5,480.4	5,442.7	5,432.8	12.3	11.0	171.65	-73.6	-338.4	772.3	753.1	19.12	40.381	
5,600.0	5,580.0	5,541.5	5,531.4	12.5	11.2	171.67	-74.9	-344.5	787.5	768.0	19.47	40.439	
5,700.0	5,679.5	5,640.3	5,630.1	12.8	11.4	171.68	-76.2	-350.5	802.7	782.8	19.82	40.495	
5,800.0	5,779.1	5,739.2	5,728.7	13.0	11.6	171.69	-77.6	-356.6	817.9	797.7	20.17	40.549	
5,900.0	5,878.7	5,838.0	5,827.4	13.2	11.8	171.70	-78.9	-362.6	833.1	812.5	20.52	40.601	
6,000.0	5,978.3	5,936.9	5,926.0	13.5	12.0	171.72	-80.2	-368.7	848.3	827.4	20.87	40.651	
6,100.0	6,077.9	6,035.7	6,024.7	13.7	12.2	171.73	-81.6	-374.7	863.5	842.3	21.22	40.700	
6,200.0	6,177.4	6,134.5	6,123.3	13.9	12.4	171.74	-82.9	-380.8	878.7	857.1	21.56	40.747	
6,300.0	6,277.0	6,233.4	6,221.9	14.2	12.6	171.75	-84.2	-386.8	893.9	872.0	21.91	40.792	
6,400.0	6,376.6	6,332.2	6,320.6	14.4	12.8	171.76	-85.6	-392.9	909.1	886.8	22.26	40.836	
6,500.0	6,476.2	6,431.0	6,419.2	14.7	13.0	171.77	-86.9	-398.9	924.3	901.7	22.61	40.879	
6,600.0	6,575.7	6,529.9	6,517.9	14.9	13.2	171.78	-88.2	-405.0	939.5	916.5	22.96	40.921	
6,700.0	6,675.3	6,628.7	6,616.5	15.1	13.5	171.79	-89.6	-411.0	954.7	931.4	23.31	40.961	
6,800.0	6,774.9	6,727.6	6,715.2	15.4	13.7	171.80	-90.9	-417.1	969.9	946.2	23.66	41.000	
6,900.0	6,874.5	6,826.4	6,813.8	15.6	13.9	171.81	-92.2	-423.1	985.1	961.1	24.00	41.038	
6,949.9	6,924.1	6,875.7	6,863.0	15.7	14.0	171.81	-92.9	-426.2	992.7	968.5	24.18	41.056	
7,000.0	6,974.0	6,925.2	6,912.4	15.8	14.1	-141.32	-93.6	-429.2	1,000.4	976.0	24.34	41.103	
7,050.0	7,023.4	6,974.1	6,961.2	15.9	14.2	-120.44	-94.2	-432.2	1,008.2	983.7	24.49	41.159	
7,100.0	7,072.1	7,022.3	7,009.3	16.0	14.3	-111.25	-94.9	-435.1	1,016.2	991.6	24.65	41.226	
7,150.0	7,119.7	7,069.3	7,056.3	16.2	14.4	-106.45	-95.5	-438.0	1,024.5	999.7	24.80	41.304	
7,200.0	7,165.9	7,114.9	7,101.7	16.3	14.5	-103.66	-96.1	-440.8	1,033.1	1,008.1	24.96	41.394	
7,250.0	7,210.2	7,158.6	7,145.3	16.4	14.5	-101.93	-96.7	-443.5	1,042.2	1,017.1	25.12	41.495	
7,300.0	7,252.5	7,208.1	7,194.8	16.5	14.6	-101.01	-96.3	-446.5	1,051.9	1,026.6	25.29	41.597	
7,350.0	7,292.2	7,264.8	7,251.1	16.7	14.7	-100.61	-90.9	-450.0	1,061.9	1,036.4	25.47	41.686	
7,400.0	7,329.2	7,325.7	7,310.7	16.8	14.8	-100.48	-78.9	-453.6	1,071.9	1,046.2	25.68	41.742	
7,450.0	7,363.2	7,391.7	7,373.3	17.0	14.9	-100.58	-58.8	-457.5	1,081.9	1,056.0	25.92	41.738	
7,500.0	7,393.8	7,463.5	7,438.4	17.3	15.1	-100.84	-28.9	-461.5	1,091.6	1,065.4	26.22	41.630	
7,550.0	7,421.0	7,541.9	7,504.7	17.5	15.2	-101.23	12.8	-465.5	1,100.8	1,074.2	26.60	41.380	
7,600.0	7,444.3	7,627.6	7,569.8	17.8	15.4	-101.67	68.2	-469.5	1,109.1	1,082.0	27.12	40.898	
7,650.0	7,463.8	7,720.6	7,630.3	18.2	15.8	-102.11	138.6	-473.2	1,116.4	1,088.5	27.82	40.125	
7,700.0	7,479.2	7,820.5	7,681.7	18.5	16.3	-102.45	224.0	-476.4	1,122.1	1,093.4	28.77	39.005	
7,750.0	7,490.4	7,925.7	7,719.0	18.9	17.0	-102.60	322.2	-478.7	1,126.2	1,096.2	30.00	37.542	
7,800.0	7,497.4	8,033.7	7,738.0	19.3	17.9	-102.50	428.3	-479.8	1,128.2	1,096.7	31.50	35.821	
7,850.0	7,500.0	8,109.3	7,740.0	19.8	18.6	-102.28	503.9	-479.9	1,128.7	1,095.8	32.84	34.367	
7,855.2	7,500.0	8,114.5	7,740.0	19.9	18.7	-102.28	509.1	-479.9	1,128.7	1,095.8	32.96	34.247	
7,900.0	7,500.0	8,159.3	7,740.0	20.3	19.1	-102.27	553.9	-479.9	1,129.2	1,095.2	33.96	33.248	
8,000.0	7,500.0	8,259.3	7,740.0	21.3	20.2	-102.26	653.9	-479.9	1,130.2	1,093.9	36.32	31.114	
8,100.0	7,500.0	8,359.3	7,740.0	22.5	21.4	-102.25	753.9	-479.9	1,131.2	1,092.4	38.85	29.121	
8,200.0	7,500.0	8,459.3	7,740.0	23.7	22.7	-102.24	853.9	-479.9	1,132.2	1,090.7	41.50	27.284	
8,300.0	7,500.0	8,559.3	7,740.0	25.0	24.0	-102.23	953.9	-479.9	1,133.3	1,089.0	44.26	25.606	
8,400.0	7,500.0	8,659.3	7,740.0	26.3	25.4	-102.22	1,053.9	-479.9	1,134.3	1,087.2	47.11	24.080	
8,500.0	7,500.0	8,759.3	7,740.0	27.7	26.8	-102.20	1,153.9	-479.9	1,135.3	1,085.3	50.03	22.694	
8,600.0	7,500.0	8,859.3	7,740.0	29.1	28.2	-102.19	1,253.9	-479.9	1,136.3	1,083.3	53.01	21.436	
8,700.0	7,500.0	8,959.3	7,740.0	30.5	29.7	-102.18	1,353.9	-479.9	1,137.4	1,081.3	56.05	20.293	
8,800.0	7,500.0	9,059.3	7,740.0	32.0	31.3	-102.17	1,453.9	-479.9	1,138.4	1,079.3	59.12	19.254	
8,900.0	7,500.0	9,159.3	7,740.0	33.5	32.8	-102.16	1,553.9	-479.9	1,139.4	1,077.2	62.24	18.307	
9,000.0	7,500.0	9,259.3	7,740.0	35.1	34.4	-102.15	1,653.9	-479.9	1,140.4	1,075.0	65.39	17.441	
9,100.0	7,500.0	9,359.3	7,740.0	36.6	35.9	-102.14	1,753.9	-479.9	1,141.5	1,072.9	68.56	16.648	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2A-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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)			
9,200.0	7,500.0	9,459.3	7,740.0	38.2	37.5	-102.13	1,853.9	-479.9	1,142.5	1,070.7	71.76	15.920	
9,300.0	7,500.0	9,559.3	7,740.0	39.8	39.1	-102.12	1,953.9	-479.9	1,143.5	1,068.5	74.98	15.250	
9,400.0	7,500.0	9,659.3	7,740.0	41.4	40.7	-102.11	2,053.8	-479.9	1,144.5	1,066.3	78.22	14.632	
9,500.0	7,500.0	9,759.3	7,740.0	43.0	42.4	-102.09	2,153.8	-479.9	1,145.5	1,064.1	81.48	14.060	
9,600.0	7,500.0	9,859.2	7,740.0	44.6	44.0	-102.08	2,253.8	-479.9	1,146.6	1,061.8	84.75	13.530	
9,700.0	7,500.0	9,959.2	7,740.0	46.2	45.7	-102.07	2,353.8	-479.9	1,147.6	1,059.6	88.03	13.037	
9,800.0	7,500.0	10,059.2	7,740.0	47.9	47.3	-102.06	2,453.8	-479.9	1,148.6	1,057.3	91.32	12.578	
9,900.0	7,500.0	10,159.2	7,740.0	49.5	49.0	-102.05	2,553.8	-479.9	1,149.6	1,055.0	94.63	12.149	
10,000.0	7,500.0	10,259.2	7,740.0	51.2	50.7	-102.04	2,653.8	-479.9	1,150.7	1,052.7	97.94	11.749	
10,046.2	7,500.0	10,305.4	7,740.0	51.9	51.4	-102.03	2,700.0	-479.9	1,151.1	1,051.7	99.47	11.573	
10,100.0	7,500.0	10,359.2	7,740.0	52.8	52.3	-102.03	2,753.8	-479.9	1,151.4	1,050.2	101.24	11.374	
10,200.0	7,500.0	10,459.2	7,740.0	54.5	54.0	-102.04	2,853.8	-479.9	1,150.7	1,046.2	104.50	11.012	
10,300.0	7,500.0	10,559.2	7,740.0	56.1	55.7	-102.07	2,953.8	-479.9	1,148.2	1,040.5	107.73	10.659	
10,400.0	7,500.0	10,659.1	7,740.0	57.8	57.4	-102.12	3,053.7	-479.9	1,144.1	1,033.2	110.92	10.314	
10,500.0	7,500.0	10,758.9	7,740.0	59.5	59.1	-102.20	3,153.5	-479.9	1,138.2	1,024.1	114.08	9.978	
10,600.0	7,500.0	10,858.6	7,740.0	61.1	60.8	-102.30	3,253.2	-479.9	1,130.7	1,013.5	117.19	9.648	
10,700.0	7,500.0	10,958.2	7,740.0	62.8	62.4	-102.42	3,352.8	-479.9	1,121.4	1,001.1	120.25	9.325	
10,800.0	7,500.0	11,057.5	7,740.0	64.4	64.1	-102.57	3,452.1	-479.9	1,110.4	987.2	123.26	9.009	
10,906.2	7,500.0	11,153.8	7,740.0	66.2	65.8	-102.74	3,548.4	-480.1	1,097.2	970.9	126.26	8.690	
11,000.0	7,500.0	11,239.9	7,740.0	67.7	67.3	-102.87	3,634.5	-481.3	1,085.7	956.5	129.21	8.402	
11,100.0	7,500.0	11,339.1	7,740.0	69.4	69.0	-103.02	3,733.7	-482.8	1,073.6	941.1	132.48	8.104	
11,200.0	7,500.0	11,438.3	7,740.0	71.0	70.7	-103.17	3,832.9	-484.3	1,061.4	925.7	135.74	7.820	
11,256.2	7,500.0	11,494.1	7,740.0	72.0	71.6	-103.25	3,888.7	-485.1	1,054.6	917.1	137.57	7.666	
11,300.0	7,500.0	11,537.6	7,740.0	72.7	72.4	-103.31	3,932.1	-485.8	1,049.5	910.4	139.14	7.543	
11,400.0	7,500.0	11,637.0	7,740.0	74.4	74.1	-103.42	4,031.5	-487.2	1,039.0	896.3	142.72	7.280	
11,500.0	7,500.0	11,736.6	7,740.0	76.1	75.8	-103.52	4,131.1	-488.7	1,030.1	883.9	146.27	7.043	
11,600.0	7,500.0	11,836.3	7,740.0	77.8	77.5	-103.60	4,230.8	-490.2	1,023.0	873.2	149.80	6.829	
11,700.0	7,500.0	11,936.2	7,740.0	79.5	79.2	-103.66	4,330.7	-491.7	1,017.6	864.3	153.30	6.638	
11,800.0	7,500.0	12,036.1	7,740.0	81.2	80.9	-103.70	4,430.6	-493.2	1,013.8	857.1	156.78	6.467	
11,900.0	7,500.0	12,136.1	7,740.0	82.9	82.7	-103.72	4,530.5	-494.7	1,011.8	851.6	160.22	6.315	
11,970.6	7,500.0	12,206.6	7,740.0	84.1	83.9	-103.73	4,601.1	-495.8	1,011.4	848.7	162.63	6.219	
12,000.0	7,500.0	12,236.1	7,740.0	84.7	84.4	-103.73	4,630.5	-496.2	1,011.4	847.8	163.63	6.181	
12,100.0	7,500.0	12,336.0	7,740.0	86.4	86.1	-103.71	4,730.5	-497.7	1,012.8	845.8	167.01	6.064	
12,169.2	7,500.0	12,405.2	7,740.0	87.6	87.3	-103.69	4,799.7	-498.7	1,014.7	845.4	169.33	5.993	
12,200.0	7,500.0	12,436.0	7,740.0	88.1	87.8	-103.67	4,830.5	-499.2	1,015.8	845.4	170.38	5.962	
12,300.0	7,500.0	12,535.9	7,740.0	89.8	89.6	-103.63	4,930.4	-500.7	1,019.1	845.3	173.78	5.864	
12,400.0	7,500.0	12,635.9	7,740.0	91.6	91.3	-103.58	5,030.3	-502.2	1,022.5	845.3	177.19	5.771	
12,500.0	7,500.0	12,735.8	7,740.0	93.3	93.0	-103.54	5,130.2	-503.7	1,025.9	845.3	180.59	5.681	
12,600.0	7,500.0	12,835.8	7,740.0	95.0	94.8	-103.49	5,230.2	-505.2	1,029.2	845.2	184.00	5.594	
12,700.0	7,500.0	12,935.7	7,740.0	96.8	96.5	-103.45	5,330.1	-506.6	1,032.6	845.2	187.42	5.510	
12,800.0	7,500.0	13,035.6	7,740.0	98.5	98.2	-103.40	5,430.0	-508.1	1,036.0	845.1	190.83	5.429	
12,900.0	7,500.0	13,135.6	7,740.0	100.2	100.0	-103.36	5,530.0	-509.6	1,039.3	845.1	194.25	5.351	
13,000.0	7,500.0	13,235.5	7,740.0	102.0	101.7	-103.31	5,629.9	-511.1	1,042.7	845.1	197.66	5.275	
13,100.0	7,500.0	13,335.5	7,740.0	103.7	103.4	-103.27	5,729.8	-512.6	1,046.1	845.0	201.08	5.202	
13,200.0	7,500.0	13,435.4	7,740.0	105.4	105.2	-103.23	5,829.7	-514.1	1,049.5	845.0	204.51	5.132	
13,300.0	7,500.0	13,535.3	7,740.0	107.2	106.9	-103.18	5,929.7	-515.6	1,052.8	844.9	207.93	5.063	
13,400.0	7,500.0	13,635.3	7,740.0	108.9	108.6	-103.14	6,029.6	-517.1	1,056.2	844.9	211.36	4.997	
13,500.0	7,500.0	13,735.2	7,740.0	110.7	110.4	-103.10	6,129.5	-518.6	1,059.6	844.8	214.78	4.933	
13,600.0	7,500.0	13,835.2	7,740.0	112.4	112.1	-103.06	6,229.5	-520.1	1,063.0	844.8	218.21	4.871	
13,700.0	7,500.0	13,935.1	7,740.0	114.1	113.8	-103.01	6,329.4	-521.6	1,066.3	844.7	221.64	4.811	
13,800.0	7,500.0	14,035.0	7,740.0	115.9	115.6	-102.97	6,429.3	-523.1	1,069.7	844.6	225.07	4.753	
13,900.0	7,500.0	14,135.0	7,740.0	117.6	117.3	-102.93	6,529.2	-524.6	1,073.1	844.6	228.51	4.696	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2A-7H-E168 - Hz - Plan #2		Offset Site Error:		0.0 ft
Survey Program:													0-Geolink MWD		Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor						
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
14,000.0	7,500.0	14,234.9	7,740.0	119.4	119.1	-102.89	6,629.2	-526.1	1,076.5	844.5	231.94	4.641					
14,100.0	7,500.0	14,334.9	7,740.0	121.1	120.8	-102.85	6,729.1	-527.5	1,079.9	844.5	235.38	4.588					
14,200.0	7,500.0	14,434.8	7,740.0	122.8	122.5	-102.81	6,829.0	-529.0	1,083.2	844.4	238.81	4.536					
14,300.0	7,500.0	14,534.7	7,740.0	124.6	124.3	-102.77	6,929.0	-530.5	1,086.6	844.4	242.25	4.485					
14,400.0	7,500.0	14,634.7	7,740.0	126.3	126.0	-102.73	7,028.9	-532.0	1,090.0	844.3	245.69	4.436					
14,455.0	7,500.0	14,682.3	7,740.0	127.3	126.8	-102.71	7,076.5	-532.7	1,091.9	844.4	247.46	4.412 SF					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2B-7H-E168 - Hz - Plan #2												Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink 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
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-19.9	19.9				
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-19.9	19.9	19.6	0.30	65.434	
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-19.9	19.9	19.2	0.65	30.442	
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-19.9	19.9	18.9	1.00	19.835	CC, ES
400.0	400.0	399.8	399.8	0.7	0.7	-91.87	-0.7	-20.4	20.4	19.1	1.35	15.133	
500.0	500.0	499.5	499.4	0.8	0.9	-96.86	-2.7	-22.1	22.3	20.6	1.70	13.083	
600.0	600.0	599.0	598.9	1.0	1.0	160.73	-6.0	-24.9	26.4	24.4	2.05	12.878	
700.0	700.0	699.3	699.1	1.2	1.2	157.29	-9.5	-27.6	32.4	30.0	2.40	13.461	
800.0	799.9	799.7	799.4	1.4	1.4	156.91	-11.9	-28.9	38.3	35.6	2.76	13.907	
900.0	899.7	899.9	899.7	1.6	1.6	158.31	-13.2	-28.9	44.4	41.3	3.11	14.281	
1,000.0	999.4	999.7	999.4	1.8	1.7	160.22	-14.3	-28.7	51.7	48.3	3.46	14.962	
1,026.5	1,025.7	1,026.0	1,025.7	1.8	1.8	160.73	-14.6	-28.6	54.0	50.4	3.55	15.200	
1,100.0	1,098.9	1,099.3	1,099.0	2.0	1.9	162.04	-15.5	-28.4	60.4	56.5	3.81	15.840	
1,200.0	1,198.5	1,198.9	1,198.6	2.2	2.1	163.43	-16.6	-28.2	69.1	64.9	4.16	16.594	
1,300.0	1,298.1	1,298.5	1,298.2	2.4	2.3	164.50	-17.7	-27.9	77.8	73.3	4.51	17.239	
1,400.0	1,397.7	1,398.1	1,397.8	2.7	2.4	165.36	-18.8	-27.6	86.6	81.7	4.87	17.796	
1,500.0	1,497.3	1,497.7	1,497.4	2.9	2.6	166.06	-20.0	-27.4	95.4	90.2	5.22	18.281	
1,600.0	1,596.8	1,597.3	1,597.0	3.1	2.8	166.64	-21.1	-27.1	104.2	98.6	5.57	18.708	
1,700.0	1,696.4	1,696.9	1,696.6	3.3	3.0	167.13	-22.2	-26.8	113.0	107.1	5.92	19.087	
1,800.0	1,796.0	1,796.5	1,796.2	3.6	3.1	167.56	-23.3	-26.6	121.8	115.5	6.27	19.424	
1,900.0	1,895.6	1,896.1	1,895.8	3.8	3.3	167.92	-24.5	-26.3	130.6	124.0	6.62	19.727	
2,000.0	1,995.2	1,995.7	1,995.4	4.0	3.5	168.24	-25.6	-26.0	139.4	132.5	6.97	20.000	
2,100.0	2,094.7	2,095.3	2,095.0	4.3	3.7	168.52	-26.7	-25.8	148.3	140.9	7.32	20.247	
2,200.0	2,194.3	2,194.9	2,194.6	4.5	3.8	168.76	-27.8	-25.5	157.1	149.4	7.67	20.473	
2,300.0	2,293.9	2,294.6	2,294.2	4.7	4.0	168.99	-28.9	-25.3	165.9	157.9	8.02	20.679	
2,400.0	2,393.5	2,394.2	2,393.8	5.0	4.2	169.19	-30.1	-25.0	174.8	166.4	8.37	20.869	
2,500.0	2,493.0	2,493.8	2,493.4	5.2	4.4	169.37	-31.2	-24.7	183.6	174.9	8.73	21.043	
2,600.0	2,592.6	2,593.4	2,593.0	5.4	4.5	169.53	-32.3	-24.5	192.5	183.4	9.08	21.204	
2,700.0	2,692.2	2,693.0	2,692.6	5.7	4.7	169.68	-33.4	-24.2	201.3	191.9	9.43	21.354	
2,800.0	2,791.8	2,792.6	2,792.2	5.9	4.9	169.82	-34.6	-23.9	210.1	200.4	9.78	21.492	
2,900.0	2,891.4	2,892.2	2,891.8	6.1	5.1	169.94	-35.7	-23.7	219.0	208.8	10.13	21.622	
3,000.0	2,990.9	2,991.8	2,991.4	6.4	5.2	170.06	-36.8	-23.4	227.8	217.3	10.48	21.743	
3,100.0	3,090.5	3,091.4	3,091.0	6.6	5.4	170.16	-37.9	-23.1	236.7	225.8	10.83	21.856	
3,200.0	3,190.1	3,191.0	3,190.6	6.8	5.6	170.26	-39.0	-22.9	245.5	234.3	11.18	21.962	
3,300.0	3,289.7	3,290.6	3,290.2	7.1	5.8	170.36	-40.2	-22.6	254.4	242.8	11.53	22.062	
3,400.0	3,389.2	3,390.2	3,389.8	7.3	5.9	170.44	-41.3	-22.4	263.2	251.3	11.88	22.156	
3,500.0	3,488.8	3,489.8	3,489.4	7.6	6.1	170.52	-42.4	-22.1	272.1	259.8	12.23	22.244	
3,600.0	3,588.4	3,589.4	3,589.0	7.8	6.3	170.60	-43.5	-21.8	280.9	268.3	12.58	22.328	
3,700.0	3,688.0	3,689.1	3,688.6	8.0	6.5	170.67	-44.7	-21.6	289.8	276.8	12.93	22.407	
3,800.0	3,787.6	3,788.7	3,788.2	8.3	6.6	170.74	-45.8	-21.3	298.6	285.3	13.28	22.482	
3,900.0	3,887.1	3,888.3	3,887.8	8.5	6.8	170.80	-46.9	-21.0	307.5	293.8	13.63	22.554	
4,000.0	3,986.7	3,987.9	3,987.4	8.7	7.0	170.86	-48.0	-20.8	316.3	302.3	13.98	22.621	
4,100.0	4,086.3	4,087.5	4,087.0	9.0	7.2	170.92	-49.2	-20.5	325.2	310.8	14.33	22.686	
4,200.0	4,185.9	4,187.1	4,186.6	9.2	7.3	170.97	-50.3	-20.2	334.0	319.3	14.68	22.747	
4,300.0	4,285.4	4,286.7	4,286.2	9.4	7.5	171.02	-51.4	-20.0	342.9	327.8	15.03	22.806	
4,400.0	4,385.0	4,386.3	4,385.8	9.7	7.7	171.07	-52.5	-19.7	351.7	336.3	15.38	22.862	
4,500.0	4,484.6	4,485.9	4,485.4	9.9	7.9	171.11	-53.6	-19.5	360.6	344.8	15.73	22.915	
4,600.0	4,584.2	4,585.5	4,585.0	10.2	8.0	171.16	-54.8	-19.2	369.4	353.3	16.08	22.966	
4,700.0	4,683.8	4,685.1	4,684.6	10.4	8.2	171.20	-55.9	-18.9	378.3	361.8	16.44	23.015	
4,800.0	4,783.3	4,784.7	4,784.2	10.6	8.4	171.24	-57.0	-18.7	387.1	370.3	16.79	23.062	
4,900.0	4,882.9	4,884.3	4,883.8	10.9	8.6	171.28	-58.1	-18.4	396.0	378.8	17.14	23.107	
5,000.0	4,982.5	4,983.9	4,983.4	11.1	8.7	171.31	-59.3	-18.1	404.8	387.3	17.49	23.150	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2B-7H-E168 - Hz - Plan #2											Offset Site Error:		0.0 ft
Survey Program: O-Geolink 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)	Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
5,100.0	5,082.1	5,083.5	5,083.0	11.3	8.9	171.35	-60.4	-17.9	413.7	395.8	17.84	23.192	
5,200.0	5,181.7	5,183.2	5,182.6	11.6	9.1	171.38	-61.5	-17.6	422.5	404.3	18.19	23.232	
5,300.0	5,281.2	5,282.8	5,282.2	11.8	9.3	171.41	-62.6	-17.3	431.4	412.8	18.54	23.270	
5,400.0	5,380.8	5,382.4	5,381.8	12.0	9.4	171.44	-63.7	-17.1	440.2	421.3	18.89	23.307	
5,500.0	5,480.4	5,482.0	5,481.4	12.3	9.6	171.47	-64.9	-16.8	449.1	429.8	19.24	23.343	
5,600.0	5,580.0	5,581.6	5,581.0	12.5	9.8	171.50	-66.0	-16.6	457.9	438.3	19.59	23.378	
5,700.0	5,679.5	5,681.2	5,680.6	12.8	10.0	171.53	-67.1	-16.3	466.8	446.8	19.94	23.411	
5,800.0	5,779.1	5,780.8	5,780.2	13.0	10.1	171.55	-68.2	-16.0	475.6	455.4	20.29	23.443	
5,900.0	5,878.7	5,880.4	5,879.8	13.2	10.3	171.58	-69.4	-15.8	484.5	463.9	20.64	23.474	
6,000.0	5,978.3	5,980.0	5,979.4	13.5	10.5	171.60	-70.5	-15.5	493.3	472.4	20.99	23.504	
6,100.0	6,077.9	6,079.6	6,079.0	13.7	10.7	171.62	-71.6	-15.2	502.2	480.9	21.34	23.533	
6,200.0	6,177.4	6,179.2	6,178.6	13.9	10.8	171.65	-72.7	-15.0	511.1	489.4	21.69	23.561	
6,300.0	6,277.0	6,278.8	6,278.2	14.2	11.0	171.67	-73.9	-14.7	519.9	497.9	22.04	23.588	
6,400.0	6,376.6	6,378.4	6,377.8	14.4	11.2	171.69	-75.0	-14.5	528.8	506.4	22.39	23.615	
6,500.0	6,476.2	6,478.0	6,477.4	14.7	11.4	171.71	-76.1	-14.2	537.6	514.9	22.74	23.640	
6,600.0	6,575.7	6,577.7	6,577.0	14.9	11.5	171.73	-77.2	-13.9	546.5	523.4	23.09	23.665	
6,700.0	6,675.3	6,677.3	6,676.6	15.1	11.7	171.75	-78.3	-13.7	555.3	531.9	23.44	23.689	
6,800.0	6,774.9	6,776.9	6,776.2	15.4	11.9	171.77	-79.5	-13.4	564.2	540.4	23.79	23.712	
6,900.0	6,874.5	6,876.5	6,875.8	15.6	12.1	171.79	-80.6	-13.1	573.0	548.9	24.14	23.735	
6,949.9	6,924.1	6,926.2	6,925.5	15.7	12.2	171.80	-81.1	-13.0	577.4	553.1	24.32	23.746	
7,000.0	6,974.0	6,976.8	6,976.1	15.8	12.2	-141.49	-79.0	-12.9	581.9	557.5	24.46	23.788	
7,050.0	7,023.4	7,027.2	7,026.0	15.9	12.3	-120.51	-72.5	-12.9	586.5	561.9	24.60	23.842	
7,100.0	7,072.1	7,077.6	7,075.2	16.0	12.4	-111.03	-61.6	-13.0	591.1	566.4	24.73	23.901	
7,150.0	7,119.7	7,127.9	7,123.2	16.2	12.4	-105.74	-46.5	-13.1	595.8	570.9	24.87	23.953	
7,200.0	7,165.9	7,178.2	7,169.6	16.3	12.5	-102.33	-27.3	-13.3	600.4	575.4	25.03	23.986	
7,250.0	7,210.2	7,228.4	7,214.1	16.4	12.6	-99.89	-4.0	-13.6	605.0	579.8	25.22	23.987	
7,300.0	7,252.5	7,278.6	7,256.4	16.5	12.7	-98.03	23.0	-14.0	609.5	584.0	25.46	23.943	
7,350.0	7,292.2	7,328.7	7,296.1	16.7	12.8	-96.54	53.6	-14.4	613.9	588.1	25.75	23.844	
7,400.0	7,329.2	7,378.9	7,333.0	16.8	13.0	-95.32	87.5	-14.9	618.1	592.0	26.10	23.680	
7,450.0	7,363.2	7,429.0	7,366.7	17.0	13.2	-94.28	124.5	-15.5	622.2	595.6	26.53	23.447	
7,500.0	7,393.8	7,479.0	7,397.1	17.3	13.4	-93.40	164.2	-16.1	626.0	598.9	27.05	23.144	
7,550.0	7,421.0	7,529.0	7,423.9	17.5	13.7	-92.64	206.5	-16.8	629.6	601.9	27.65	22.772	
7,600.0	7,444.3	7,579.0	7,446.9	17.8	14.0	-91.98	250.9	-17.5	632.9	604.6	28.33	22.338	
7,650.0	7,463.8	7,629.0	7,465.9	18.2	14.4	-91.43	297.0	-18.3	635.9	606.8	29.10	21.850	
7,700.0	7,479.2	7,679.0	7,480.8	18.5	14.8	-90.95	344.7	-19.1	638.6	608.7	29.95	21.320	
7,750.0	7,490.4	7,728.9	7,491.5	18.9	15.3	-90.56	393.4	-19.9	641.0	610.1	30.88	20.758	
7,800.0	7,497.4	7,778.8	7,497.9	19.3	15.8	-90.25	442.9	-20.7	643.0	611.1	31.87	20.177	
7,850.0	7,500.0	7,828.7	7,500.0	19.8	16.4	-90.02	492.7	-21.6	644.6	611.7	32.91	19.589	
7,855.2	7,500.0	7,833.8	7,500.0	19.9	16.4	-90.00	497.9	-21.7	644.8	611.7	33.02	19.527	
7,900.0	7,500.0	7,878.6	7,500.0	20.3	16.9	-90.00	542.7	-22.5	646.0	612.0	34.05	18.972	
8,000.0	7,500.0	7,978.6	7,500.0	21.3	18.1	-90.00	642.6	-24.2	648.8	612.3	36.49	17.781	
8,100.0	7,500.0	8,078.6	7,500.0	22.5	19.4	-90.00	742.5	-26.0	651.6	612.5	39.08	16.671	
8,200.0	7,500.0	8,178.5	7,500.0	23.7	20.8	-90.00	842.5	-27.7	654.4	612.6	41.82	15.649	
8,300.0	7,500.0	8,278.5	7,500.0	25.0	22.2	-90.00	942.4	-29.5	657.2	612.5	44.65	14.717	
8,400.0	7,500.0	8,378.4	7,500.0	26.3	23.7	-90.00	1,042.4	-31.2	660.0	612.4	47.58	13.870	
8,500.0	7,500.0	8,478.4	7,500.0	27.7	25.2	-90.00	1,142.3	-32.9	662.8	612.2	50.58	13.102	
8,600.0	7,500.0	8,578.4	7,500.0	29.1	26.7	-90.00	1,242.3	-34.7	665.6	611.9	53.65	12.406	
8,700.0	7,500.0	8,678.3	7,500.0	30.5	28.2	-90.00	1,342.2	-36.4	668.3	611.6	56.76	11.774	
8,800.0	7,500.0	8,778.3	7,500.0	32.0	29.8	-90.00	1,442.2	-38.2	671.1	611.2	59.92	11.200	
8,900.0	7,500.0	8,878.2	7,500.0	33.5	31.4	-90.00	1,542.1	-39.9	673.9	610.8	63.12	10.678	
9,000.0	7,500.0	8,978.2	7,500.0	35.1	33.0	-90.00	1,642.1	-41.7	676.7	610.4	66.34	10.200	
9,100.0	7,500.0	9,078.2	7,500.0	36.6	34.6	-90.00	1,742.0	-43.4	679.5	609.9	69.60	9.764	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2B-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	
9,200.0	7,500.0	9,172.8	7,500.0	38.2	36.2	-90.00	1,836.6	-45.2	682.5	609.7	72.79	9.377	
9,300.0	7,500.0	9,262.0	7,500.0	39.8	37.7	-90.00	1,925.8	-48.2	686.9	611.0	75.91	9.049	
9,400.0	7,500.0	9,351.1	7,500.0	41.4	39.1	-90.00	2,014.8	-52.5	692.8	613.7	79.04	8.765	
9,500.0	7,500.0	9,441.5	7,500.0	43.0	40.6	-90.00	2,105.0	-58.3	700.2	618.0	82.21	8.518	
9,600.0	7,500.0	9,541.2	7,500.0	44.6	42.3	-90.00	2,204.4	-65.3	708.2	622.7	85.54	8.279	
9,700.0	7,500.0	9,640.9	7,500.0	46.2	44.0	-90.00	2,303.9	-72.2	716.3	627.4	88.89	8.058	
9,800.0	7,500.0	9,740.6	7,500.0	47.9	45.7	-90.00	2,403.3	-79.2	724.3	632.0	92.25	7.851	
9,900.0	7,500.0	9,840.2	7,500.0	49.5	47.3	-90.00	2,502.7	-86.1	732.3	636.7	95.62	7.658	
10,000.0	7,500.0	9,939.9	7,500.0	51.2	49.0	-90.00	2,602.2	-93.1	740.3	641.3	99.00	7.478	
10,046.2	7,500.0	9,985.9	7,500.0	51.9	49.8	-90.00	2,648.1	-96.3	744.0	643.5	100.56	7.399	
10,100.0	7,500.0	10,039.6	7,500.0	52.8	50.7	-90.00	2,701.6	-100.0	748.1	645.8	102.30	7.312	
10,200.0	7,500.0	10,139.4	7,500.0	54.5	52.4	-90.00	2,801.2	-107.0	754.3	648.8	105.53	7.148	
10,300.0	7,500.0	10,239.3	7,500.0	56.1	54.1	-90.00	2,900.8	-114.0	758.8	650.0	108.73	6.978	
10,400.0	7,500.0	10,339.3	7,500.0	57.8	55.8	-90.00	3,000.6	-121.0	761.5	649.6	111.92	6.804	
10,500.0	7,500.0	10,439.3	7,500.0	59.5	57.5	-90.00	3,100.3	-127.9	762.5	647.4	115.08	6.626	
10,600.0	7,500.0	10,539.3	7,500.0	61.1	59.3	-90.00	3,200.1	-134.9	761.7	643.5	118.22	6.443	
10,700.0	7,500.0	10,641.0	7,500.0	62.8	61.0	-90.00	3,301.5	-142.0	759.2	637.8	121.35	6.256	
10,800.0	7,500.0	10,756.0	7,500.0	64.4	63.0	-90.00	3,416.4	-148.6	753.7	629.0	124.68	6.045	
10,906.2	7,500.0	10,877.6	7,500.0	66.2	65.1	-90.00	3,537.9	-153.1	743.8	615.6	128.17	5.803	
11,000.0	7,500.0	10,984.5	7,500.0	67.7	66.9	-90.00	3,644.8	-154.9	732.3	600.7	131.61	5.564	
11,100.0	7,500.0	11,088.5	7,500.0	69.4	68.7	-90.00	3,748.7	-155.1	718.6	583.5	135.11	5.318	
11,200.0	7,500.0	11,187.5	7,500.0	71.0	70.4	-90.00	3,847.8	-155.2	704.7	566.2	138.53	5.087	
11,256.2	7,500.0	11,243.2	7,500.0	72.0	71.4	-90.00	3,903.4	-155.2	697.0	556.5	140.45	4.962	
11,300.0	7,500.0	11,286.6	7,500.0	72.7	72.1	-90.00	3,946.8	-155.2	691.1	548.9	142.14	4.862	
11,400.0	7,500.0	11,385.8	7,500.0	74.4	73.8	-90.00	4,046.1	-155.3	678.8	532.9	145.98	4.650	
11,500.0	7,500.0	11,485.3	7,500.0	76.1	75.5	-90.00	4,145.5	-155.4	668.4	518.6	149.79	4.462	
11,600.0	7,500.0	11,584.9	7,500.0	77.8	77.3	-90.00	4,245.2	-155.5	659.6	506.1	153.57	4.295	
11,700.0	7,500.0	11,684.6	7,500.0	79.5	79.0	-90.00	4,344.9	-155.6	652.6	495.3	157.31	4.149	
11,800.0	7,500.0	11,784.5	7,500.0	81.2	80.7	-90.00	4,444.8	-155.6	647.4	486.3	161.02	4.020	
11,900.0	7,500.0	11,884.4	7,500.0	82.9	82.5	-90.00	4,544.7	-155.7	643.8	479.2	164.68	3.910	
12,000.0	7,500.0	11,984.4	7,500.0	84.7	84.2	-90.00	4,644.7	-155.8	642.1	473.8	168.30	3.815	
12,051.5	7,500.0	12,035.9	7,500.0	85.5	85.1	-90.00	4,696.2	-155.9	641.8	471.7	170.15	3.772	
12,100.0	7,500.0	12,084.4	7,500.0	86.4	85.9	-90.00	4,744.7	-155.9	642.0	470.2	171.88	3.735	
12,169.2	7,500.0	12,153.6	7,500.0	87.6	87.1	-90.00	4,813.9	-156.0	643.1	468.7	174.32	3.689	
12,200.0	7,500.0	12,184.4	7,500.0	88.1	87.7	-90.00	4,844.7	-156.0	643.7	468.3	175.39	3.670	
12,300.0	7,500.0	12,284.4	7,500.0	89.8	89.4	-90.00	4,944.7	-156.1	645.7	466.9	178.86	3.610	
12,400.0	7,500.0	12,384.4	7,500.0	91.6	91.1	-90.00	5,044.6	-156.1	647.8	465.5	182.33	3.553	
12,500.0	7,500.0	12,484.3	7,500.0	93.3	92.9	-90.00	5,144.6	-156.2	649.8	464.0	185.81	3.497	
12,600.0	7,500.0	12,584.3	7,500.0	95.0	94.6	-90.00	5,244.6	-156.3	651.9	462.6	189.28	3.444	
12,700.0	7,500.0	12,684.3	7,500.0	96.8	96.3	-90.00	5,344.6	-156.4	654.0	461.2	192.76	3.393	
12,800.0	7,500.0	12,784.3	7,500.0	98.5	98.1	-90.00	5,444.5	-156.5	656.0	459.8	196.23	3.343	
12,900.0	7,500.0	12,884.3	7,500.0	100.2	99.8	-90.00	5,544.5	-156.5	658.1	458.3	199.71	3.295	
13,000.0	7,500.0	12,984.2	7,500.0	102.0	101.5	-90.00	5,644.5	-156.6	660.1	456.9	203.19	3.249	
13,100.0	7,500.0	13,084.2	7,500.0	103.7	103.3	-90.00	5,744.5	-156.7	662.2	455.5	206.67	3.204	
13,200.0	7,500.0	13,184.2	7,500.0	105.4	105.0	-90.00	5,844.5	-156.8	664.2	454.1	210.15	3.161	
13,300.0	7,500.0	13,284.2	7,500.0	107.2	106.8	-90.00	5,944.4	-156.9	666.3	452.6	213.63	3.119	
13,400.0	7,500.0	13,384.2	7,500.0	108.9	108.5	-90.00	6,044.4	-157.0	668.3	451.2	217.12	3.078	
13,500.0	7,500.0	13,484.1	7,500.0	110.7	110.2	-90.00	6,144.4	-157.0	670.4	449.8	220.60	3.039	
13,600.0	7,500.0	13,584.1	7,500.0	112.4	112.0	-90.00	6,244.4	-157.1	672.4	448.4	224.08	3.001	
13,700.0	7,500.0	13,684.1	7,500.0	114.1	113.7	-90.00	6,344.4	-157.2	674.5	446.9	227.57	2.964	
13,800.0	7,500.0	13,784.1	7,500.0	115.9	115.5	-90.00	6,444.3	-157.3	676.5	445.5	231.05	2.928	
13,900.0	7,500.0	13,884.0	7,500.0	117.6	117.2	-90.00	6,544.3	-157.4	678.6	444.1	234.54	2.893	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2B-7H-E168 - Hz - Plan #2		Offset Site Error:		0.0 ft
Survey Program:													0-Geolink MWD		Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	Centre +E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)							
14,000.0	7,500.0	13,984.0	7,500.0	119.4	119.0	-90.00	6,644.3	-157.4	680.7	442.6	238.03	2.860					
14,100.0	7,500.0	14,084.0	7,500.0	121.1	120.7	-90.00	6,744.3	-157.5	682.7	441.2	241.51	2.827					
14,200.0	7,500.0	14,184.0	7,500.0	122.8	122.4	-90.00	6,844.2	-157.6	684.8	439.8	245.00	2.795					
14,300.0	7,500.0	14,284.0	7,500.0	124.6	124.2	-90.00	6,944.2	-157.7	686.8	438.3	248.49	2.764					
14,400.0	7,500.0	14,383.9	7,500.0	126.3	125.9	-90.00	7,044.2	-157.8	688.9	436.9	251.98	2.734					
14,455.0	7,500.0	14,422.4	7,500.0	127.3	126.6	-90.00	7,082.7	-157.8	690.2	436.6	253.61	2.721 SF					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2C-7H-E168 - Hz - Plan #4												Offset Site Error: 0.0 ft		
Survey Program: 0-Geolink 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	-90.00	0.0	-9.8	9.8					
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-9.8	9.8	9.5	0.30	32.256		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-9.8	9.8	9.1	0.65	15.007		
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-9.8	9.8	8.8	1.00	9.778		
400.0	400.0	400.0	400.0	0.7	0.7	-90.00	0.0	-9.8	9.8	8.4	1.35	7.251		
500.0	500.0	500.0	500.0	0.8	0.8	-90.00	0.0	-9.8	9.8	8.1	1.70	5.762 CC, ES		
600.0	600.0	600.0	600.0	1.0	1.0	174.13	0.0	-9.8	10.7	8.6	2.05	5.205		
700.0	700.0	700.2	700.2	1.2	1.2	174.93	-0.1	-8.9	12.4	10.0	2.40	5.172		
800.0	799.9	800.4	800.4	1.4	1.4	175.49	-0.4	-6.3	14.1	11.4	2.75	5.148		
900.0	899.7	900.6	900.5	1.6	1.6	175.90	-0.9	-2.0	15.9	12.8	3.09	5.129		
1,000.0	999.4	1,000.6	1,000.3	1.8	1.7	176.39	-1.5	3.2	18.5	15.1	3.44	5.383		
1,026.5	1,025.7	1,027.1	1,026.8	1.8	1.8	176.55	-1.7	4.6	19.5	16.0	3.53	5.525		
1,100.0	1,098.9	1,100.5	1,100.1	2.0	1.9	176.95	-2.1	8.3	22.5	18.7	3.79	5.924		
1,200.0	1,198.5	1,200.4	1,199.9	2.2	2.1	177.34	-2.7	13.5	26.4	22.3	4.14	6.388		
1,300.0	1,298.1	1,300.4	1,299.7	2.4	2.3	177.64	-3.4	18.6	30.4	25.9	4.49	6.780		
1,400.0	1,397.7	1,400.3	1,399.5	2.7	2.5	177.86	-4.0	23.8	34.4	29.6	4.84	7.116		
1,500.0	1,497.3	1,500.2	1,499.3	2.9	2.7	178.04	-4.6	29.0	38.4	33.2	5.19	7.406		
1,600.0	1,596.8	1,600.1	1,599.0	3.1	2.9	178.19	-5.2	34.1	42.4	36.9	5.54	7.660		
1,700.0	1,696.4	1,700.0	1,698.8	3.3	3.1	178.31	-5.8	39.3	46.4	40.5	5.89	7.884		
1,800.0	1,796.0	1,800.0	1,798.6	3.6	3.3	178.41	-6.4	44.4	50.4	44.2	6.23	8.082		
1,900.0	1,895.6	1,899.9	1,898.4	3.8	3.5	178.49	-7.0	49.6	54.4	47.8	6.58	8.260		
2,000.0	1,995.2	1,999.8	1,998.2	4.0	3.7	178.57	-7.6	54.7	58.4	51.4	6.93	8.420		
2,100.0	2,094.7	2,099.7	2,098.0	4.3	3.9	178.63	-8.2	59.9	62.4	55.1	7.28	8.565		
2,200.0	2,194.3	2,199.6	2,197.8	4.5	4.1	178.69	-8.8	65.0	66.4	58.7	7.63	8.696		
2,300.0	2,293.9	2,299.6	2,297.5	4.7	4.2	178.74	-9.4	70.2	70.3	62.4	7.98	8.816		
2,400.0	2,393.5	2,399.5	2,397.3	5.0	4.4	178.78	-10.0	75.3	74.3	66.0	8.33	8.926		
2,500.0	2,493.0	2,499.4	2,497.1	5.2	4.6	178.82	-10.6	80.5	78.3	69.7	8.68	9.027		
2,600.0	2,592.6	2,599.3	2,596.9	5.4	4.8	178.86	-11.2	85.6	82.3	73.3	9.03	9.120		
2,700.0	2,692.2	2,699.2	2,696.7	5.7	5.0	178.89	-11.9	90.8	86.3	76.9	9.38	9.206		
2,800.0	2,791.8	2,799.2	2,796.5	5.9	5.2	178.92	-12.5	95.9	90.3	80.6	9.73	9.286		
2,900.0	2,891.4	2,899.1	2,896.3	6.1	5.4	178.95	-13.1	101.1	94.3	84.2	10.07	9.361		
3,000.0	2,990.9	2,999.0	2,996.0	6.4	5.6	178.98	-13.7	106.2	98.3	87.9	10.42	9.430		
3,100.0	3,090.5	3,098.9	3,095.8	6.6	5.8	179.00	-14.3	111.4	102.3	91.5	10.77	9.495		
3,200.0	3,190.1	3,198.8	3,195.6	6.8	6.0	179.02	-14.9	116.6	106.3	95.2	11.12	9.556		
3,300.0	3,289.7	3,298.8	3,295.4	7.1	6.2	179.04	-15.5	121.7	110.3	98.8	11.47	9.613		
3,400.0	3,389.2	3,398.7	3,395.2	7.3	6.4	179.06	-16.1	126.9	114.3	102.4	11.82	9.667		
3,500.0	3,488.8	3,498.6	3,495.0	7.6	6.6	179.08	-16.7	132.0	118.3	106.1	12.17	9.718		
3,600.0	3,588.4	3,598.5	3,594.7	7.8	6.8	179.09	-17.3	137.2	122.3	109.7	12.52	9.766		
3,700.0	3,688.0	3,698.4	3,694.5	8.0	7.0	179.11	-17.9	142.3	126.2	113.4	12.87	9.811		
3,800.0	3,787.6	3,798.4	3,794.3	8.3	7.2	179.12	-18.5	147.5	130.2	117.0	13.22	9.854		
3,900.0	3,887.1	3,898.3	3,894.1	8.5	7.4	179.14	-19.1	152.6	134.2	120.7	13.57	9.895		
4,000.0	3,986.7	3,998.2	3,993.9	8.7	7.6	179.15	-19.7	157.8	138.2	124.3	13.91	9.934		
4,100.0	4,086.3	4,098.1	4,093.7	9.0	7.8	179.16	-20.4	162.9	142.2	128.0	14.26	9.970		
4,200.0	4,185.9	4,198.0	4,193.5	9.2	8.0	179.17	-21.0	168.1	146.2	131.6	14.61	10.006		
4,300.0	4,285.4	4,298.0	4,293.2	9.4	8.2	179.18	-21.6	173.2	150.2	135.2	14.96	10.039		
4,400.0	4,385.0	4,397.9	4,393.0	9.7	8.4	179.19	-22.2	178.4	154.2	138.9	15.31	10.071		
4,500.0	4,484.6	4,497.8	4,492.8	9.9	8.6	179.20	-22.8	183.5	158.2	142.5	15.66	10.101		
4,600.0	4,584.2	4,597.7	4,592.6	10.2	8.7	179.21	-23.4	188.7	162.2	146.2	16.01	10.130		
4,700.0	4,683.8	4,697.6	4,692.4	10.4	8.9	179.22	-24.0	193.8	166.2	149.8	16.36	10.158		
4,800.0	4,783.3	4,797.6	4,792.2	10.6	9.1	179.23	-24.6	199.0	170.2	153.5	16.71	10.185		
4,900.0	4,882.9	4,897.5	4,892.0	10.9	9.3	179.24	-25.2	204.2	174.2	157.1	17.06	10.211		
5,000.0	4,982.5	4,997.4	4,991.7	11.1	9.5	179.25	-25.8	209.3	178.2	160.7	17.41	10.235		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2C-7H-E168 - Hz - Plan #4											Offset Site Error: 0.0 ft		
Survey Program: O-Geolink 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	
5,100.0	5,082.1	5,097.3	5,091.5	11.3	9.7	179.25	-26.4	214.5	182.1	164.4	17.75	10.259	
5,200.0	5,181.7	5,197.3	5,191.3	11.6	9.9	179.26	-27.0	219.6	186.1	168.0	18.10	10.282	
5,300.0	5,281.2	5,297.2	5,291.1	11.8	10.1	179.27	-27.6	224.8	190.1	171.7	18.45	10.304	
5,400.0	5,380.8	5,397.1	5,390.9	12.0	10.3	179.27	-28.2	229.9	194.1	175.3	18.80	10.325	
5,500.0	5,480.4	5,497.0	5,490.7	12.3	10.5	179.28	-28.8	235.1	198.1	179.0	19.15	10.345	
5,600.0	5,580.0	5,596.9	5,590.5	12.5	10.7	179.29	-29.5	240.2	202.1	182.6	19.50	10.364	
5,700.0	5,679.5	5,696.9	5,690.2	12.8	10.9	179.29	-30.1	245.4	206.1	186.3	19.85	10.383	
5,800.0	5,779.1	5,796.8	5,790.0	13.0	11.1	179.30	-30.7	250.5	210.1	189.9	20.20	10.402	
5,900.0	5,878.7	5,896.7	5,889.8	13.2	11.3	179.30	-31.3	255.7	214.1	193.5	20.55	10.419	
6,000.0	5,978.3	5,996.6	5,989.6	13.5	11.5	179.31	-31.9	260.8	218.1	197.2	20.90	10.436	
6,100.0	6,077.9	6,096.5	6,089.4	13.7	11.7	179.31	-32.5	266.0	222.1	200.8	21.25	10.453	
6,200.0	6,177.4	6,196.5	6,189.2	13.9	11.9	179.32	-33.1	271.1	226.1	204.5	21.59	10.469	
6,300.0	6,277.0	6,296.4	6,289.0	14.2	12.1	179.32	-33.7	276.3	230.1	208.1	21.94	10.484	
6,400.0	6,376.6	6,396.3	6,388.7	14.4	12.3	179.33	-34.3	281.4	234.1	211.8	22.29	10.499	
6,500.0	6,476.2	6,496.2	6,488.5	14.7	12.5	179.33	-34.9	286.6	238.0	215.4	22.64	10.513	
6,600.0	6,575.7	6,596.1	6,588.3	14.9	12.7	179.33	-35.5	291.8	242.0	219.0	22.99	10.527	
6,700.0	6,675.3	6,696.1	6,688.1	15.1	12.9	179.34	-36.1	296.9	246.0	222.7	23.34	10.541	
6,800.0	6,774.9	6,796.0	6,787.9	15.4	13.1	179.34	-36.7	302.1	250.0	226.3	23.69	10.554	
6,900.0	6,874.5	6,895.9	6,887.7	15.6	13.3	179.35	-37.3	307.2	254.0	230.0	24.04	10.567	
6,949.9	6,924.1	6,945.7	6,937.4	15.7	13.4	179.35	-37.7	309.8	256.0	231.8	24.21	10.573	
7,000.0	6,974.0	6,995.8	6,987.4	15.8	13.5	-134.74	-38.0	312.4	257.8	233.4	24.39	10.571	
7,050.0	7,023.4	7,045.3	7,036.9	15.9	13.6	-115.55	-38.3	314.9	259.4	234.8	24.57	10.556	
7,100.0	7,072.1	7,094.1	7,085.6	16.0	13.7	-108.73	-38.6	317.4	260.9	236.2	24.75	10.542	
7,150.0	7,119.7	7,141.8	7,133.2	16.2	13.7	-106.86	-38.8	319.9	263.0	238.1	24.93	10.549	
7,200.0	7,165.9	7,188.6	7,180.0	16.3	13.8	-107.41	-38.9	322.3	266.3	241.2	25.11	10.604	
7,250.0	7,210.2	7,237.3	7,228.5	16.4	13.9	-109.05	-35.8	324.7	271.0	245.8	25.26	10.731	
7,300.0	7,252.5	7,287.7	7,278.3	16.5	14.0	-111.14	-28.2	327.2	277.2	251.8	25.35	10.934	
7,350.0	7,292.2	7,340.2	7,329.2	16.7	14.1	-113.44	-15.6	329.6	284.5	259.1	25.37	11.215	
7,400.0	7,329.2	7,394.9	7,380.8	16.8	14.2	-115.81	2.3	331.9	292.9	267.6	25.33	11.566	
7,450.0	7,363.2	7,452.2	7,432.7	17.0	14.3	-118.15	26.3	334.2	302.1	276.9	25.22	11.979	
7,500.0	7,393.8	7,512.2	7,484.3	17.3	14.5	-120.40	56.9	336.3	311.8	286.7	25.09	12.428	
7,550.0	7,421.0	7,575.2	7,534.7	17.5	14.7	-122.51	94.5	338.3	321.8	296.8	24.98	12.881	
7,600.0	7,444.3	7,641.3	7,582.8	17.8	14.9	-124.44	139.8	339.9	331.7	306.7	24.95	13.295	
7,650.0	7,463.8	7,710.7	7,627.4	18.2	15.2	-126.15	192.9	341.3	341.1	316.1	25.05	13.616	
7,700.0	7,479.2	7,783.4	7,666.8	18.5	15.7	-127.61	253.9	342.3	349.9	324.5	25.37	13.792	
7,750.0	7,490.4	7,859.2	7,699.4	18.9	16.2	-128.80	322.3	342.8	357.5	331.6	25.94	13.781	
7,800.0	7,497.4	7,937.7	7,723.3	19.3	16.8	-129.68	397.0	342.7	363.9	337.0	26.83	13.562	
7,850.0	7,500.0	8,018.4	7,737.1	19.8	17.6	-130.23	476.4	342.0	368.6	340.6	28.04	13.147	
7,855.2	7,500.0	8,026.9	7,737.9	19.9	17.7	-130.27	484.9	341.9	369.0	340.8	28.18	13.094	
7,900.0	7,500.0	8,091.1	7,740.0	20.3	18.3	-130.35	549.0	340.9	370.7	341.6	29.09	12.746	
8,000.0	7,500.0	8,191.0	7,740.0	21.3	19.5	-130.08	648.9	339.2	372.9	341.9	30.99	12.033	
8,100.0	7,500.0	8,291.0	7,740.0	22.5	20.7	-129.80	748.9	337.4	375.0	342.0	33.02	11.358	
8,200.0	7,500.0	8,390.9	7,740.0	23.7	22.0	-129.53	848.8	335.7	377.2	342.0	35.16	10.726	
8,300.0	7,500.0	8,490.9	7,740.0	25.0	23.3	-129.26	948.8	333.9	379.3	341.9	37.41	10.140	
8,400.0	7,500.0	8,590.9	7,740.0	26.3	24.7	-129.00	1,048.7	332.2	381.5	341.7	39.74	9.599	
8,500.0	7,500.0	8,690.8	7,740.0	27.7	26.2	-128.73	1,148.7	330.4	383.7	341.5	42.15	9.103	
8,600.0	7,500.0	8,790.8	7,740.0	29.1	27.6	-128.47	1,248.6	328.7	385.8	341.2	44.62	8.647	
8,700.0	7,500.0	8,890.7	7,740.0	30.5	29.1	-128.22	1,348.6	326.9	388.0	340.9	47.15	8.229	
8,800.0	7,500.0	8,990.7	7,740.0	32.0	30.7	-127.96	1,448.5	325.2	390.2	340.5	49.74	7.845	
8,900.0	7,500.0	9,090.7	7,740.0	33.5	32.2	-127.71	1,548.5	323.5	392.4	340.1	52.37	7.493	
9,000.0	7,500.0	9,190.6	7,740.0	35.1	33.8	-127.47	1,648.4	321.7	394.6	339.6	55.05	7.169	
9,100.0	7,500.0	9,290.6	7,740.0	36.6	35.4	-127.22	1,748.3	320.0	396.9	339.1	57.76	6.871	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2C-7H-E168 - Hz - Plan #4												Offset Site Error:	0.0 ft
Survey Program: 0-Geolink 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)			
9,200.0	7,500.0	9,390.6	7,740.0	38.2	37.0	-126.98	1,848.3	318.2	399.1	338.6	60.51	6.596	
9,300.0	7,500.0	9,490.5	7,740.0	39.8	38.6	-126.74	1,948.2	316.5	401.3	338.0	63.29	6.341	
9,400.0	7,500.0	9,590.5	7,740.0	41.4	40.3	-126.50	2,048.2	314.7	403.6	337.5	66.10	6.105	
9,500.0	7,500.0	9,690.4	7,740.0	43.0	41.9	-126.27	2,148.1	313.0	405.8	336.9	68.94	5.886	
9,600.0	7,500.0	9,790.4	7,740.0	44.6	43.5	-126.04	2,248.1	311.2	408.1	336.3	71.81	5.683	
9,700.0	7,500.0	9,890.4	7,740.0	46.2	45.2	-125.81	2,348.0	309.5	410.3	335.6	74.70	5.493	
9,800.0	7,500.0	9,990.3	7,740.0	47.9	46.9	-125.58	2,448.0	307.8	412.6	335.0	77.61	5.316	
9,900.0	7,500.0	10,090.3	7,740.0	49.5	48.5	-125.35	2,547.9	306.0	414.9	334.3	80.54	5.151	
10,000.0	7,500.0	10,190.2	7,740.0	51.2	50.2	-125.13	2,647.9	304.3	417.2	333.7	83.50	4.996	
10,046.2	7,500.0	10,236.4	7,740.0	51.9	51.0	-125.03	2,694.0	303.5	418.2	333.3	84.87	4.928	
10,100.0	7,500.0	10,290.2	7,740.0	52.8	51.9	-124.93	2,747.8	302.5	419.2	332.9	86.35	4.855	
10,200.0	7,500.0	10,390.2	7,740.0	54.5	53.6	-124.85	2,847.8	300.8	420.0	331.0	89.00	4.720	
10,300.0	7,500.0	10,490.2	7,740.0	56.1	55.3	-124.91	2,947.8	299.0	419.4	327.9	91.49	4.584	
10,400.0	7,500.0	10,590.2	7,740.0	57.8	57.0	-125.12	3,047.7	297.3	417.4	323.6	93.80	4.449	
10,500.0	7,500.0	10,690.1	7,740.0	59.5	58.7	-125.48	3,147.6	295.5	413.9	318.0	95.92	4.315	
10,600.0	7,500.0	10,789.9	7,740.0	61.1	60.4	-125.99	3,247.4	293.8	409.0	311.2	97.82	4.181	
10,700.0	7,500.0	10,889.6	7,740.0	62.8	62.1	-126.68	3,347.1	292.1	402.8	303.3	99.46	4.050	
10,800.0	7,500.0	10,989.1	7,740.0	64.4	63.8	-127.54	3,446.6	290.3	395.2	294.4	100.79	3.921	
10,906.2	7,500.0	11,094.7	7,740.0	66.2	65.6	-128.68	3,552.1	288.5	385.8	283.9	101.82	3.789	
11,000.0	7,500.0	11,187.8	7,740.0	67.7	67.2	-129.76	3,645.2	286.9	376.9	274.0	102.89	3.663	
11,100.0	7,500.0	11,287.0	7,740.0	69.4	68.9	-130.98	3,744.5	285.1	367.6	263.7	103.84	3.540	
11,200.0	7,500.0	11,386.3	7,740.0	71.0	70.6	-132.25	3,843.7	283.4	358.4	253.9	104.57	3.428	
11,256.2	7,500.0	11,442.0	7,740.0	72.0	71.5	-132.99	3,899.5	282.4	353.4	248.5	104.87	3.370	
11,300.0	7,500.0	11,485.5	7,740.0	72.7	72.3	-133.54	3,943.0	281.7	349.6	244.3	105.28	3.320	
11,400.0	7,500.0	11,585.0	7,740.0	74.4	74.0	-134.71	4,042.4	279.9	342.0	235.7	106.25	3.219	
11,500.0	7,500.0	11,684.6	7,740.0	76.1	75.7	-135.72	4,142.0	278.2	335.8	228.5	107.30	3.129	
11,600.0	7,500.0	11,784.3	7,740.0	77.8	77.4	-136.56	4,241.7	276.4	330.8	222.3	108.52	3.049	
11,700.0	7,500.0	11,884.2	7,740.0	79.5	79.1	-137.21	4,341.6	274.7	327.2	217.2	109.95	2.976	
11,800.0	7,500.0	11,984.1	7,740.0	81.2	80.9	-137.66	4,441.5	273.0	324.8	213.1	111.68	2.908	
11,900.0	7,500.0	12,084.1	7,740.0	82.9	82.6	-137.89	4,541.4	271.2	323.5	209.8	113.76	2.844	
11,956.2	7,500.0	12,140.3	7,740.0	83.9	83.5	-137.93	4,597.6	270.2	323.3	208.2	115.09	2.809	
12,000.0	7,500.0	12,184.1	7,740.0	84.7	84.3	-137.91	4,641.4	269.5	323.4	207.2	116.22	2.783	
12,100.0	7,500.0	12,284.1	7,740.0	86.4	86.0	-137.70	4,741.4	267.7	324.5	205.4	119.10	2.725	
12,169.2	7,500.0	12,353.3	7,740.0	87.6	87.2	-137.43	4,810.5	266.5	326.0	204.6	121.36	2.686	
12,200.0	7,500.0	12,384.0	7,740.0	88.1	87.8	-137.28	4,841.3	266.0	326.8	204.4	122.39	2.670	
12,300.0	7,500.0	12,484.0	7,740.0	89.8	89.5	-136.81	4,941.2	264.2	329.3	203.5	125.76	2.618	
12,400.0	7,500.0	12,583.9	7,740.0	91.6	91.2	-136.34	5,041.2	262.5	331.9	202.7	129.15	2.569	
12,500.0	7,500.0	12,683.8	7,740.0	93.3	93.0	-135.88	5,141.1	260.8	334.4	201.9	132.57	2.523	
12,600.0	7,500.0	12,783.8	7,740.0	95.0	94.7	-135.43	5,241.0	259.0	337.0	201.0	135.99	2.478	
12,700.0	7,500.0	12,883.7	7,740.0	96.8	96.4	-134.98	5,340.9	257.3	339.7	200.2	139.44	2.436	
12,800.0	7,500.0	12,983.6	7,740.0	98.5	98.2	-134.54	5,440.8	255.5	342.3	199.4	142.90	2.395	
12,900.0	7,500.0	13,083.6	7,740.0	100.2	99.9	-134.11	5,540.7	253.8	345.0	198.6	146.38	2.357	
13,000.0	7,500.0	13,183.5	7,740.0	102.0	101.6	-133.68	5,640.7	252.0	347.6	197.8	149.87	2.320	
13,100.0	7,500.0	13,283.4	7,740.0	103.7	103.4	-133.26	5,740.6	250.3	350.3	197.0	153.38	2.284	
13,200.0	7,500.0	13,383.4	7,740.0	105.4	105.1	-132.85	5,840.5	248.5	353.0	196.2	156.90	2.250	
13,300.0	7,500.0	13,483.3	7,740.0	107.2	106.8	-132.44	5,940.4	246.8	355.8	195.4	160.43	2.218	
13,400.0	7,500.0	13,583.2	7,740.0	108.9	108.6	-132.04	6,040.3	245.1	358.5	194.6	163.97	2.187	
13,500.0	7,500.0	13,683.1	7,740.0	110.7	110.3	-131.65	6,140.2	243.3	361.3	193.8	167.52	2.157	
13,600.0	7,500.0	13,783.1	7,740.0	112.4	112.0	-131.26	6,240.1	241.6	364.1	193.0	171.09	2.128	
13,700.0	7,500.0	13,883.0	7,740.0	114.1	113.8	-130.87	6,340.1	239.8	366.9	192.2	174.66	2.101	
13,800.0	7,500.0	13,982.9	7,740.0	115.9	115.5	-130.50	6,440.0	238.1	369.7	191.5	178.25	2.074	
13,900.0	7,500.0	14,082.6	7,740.0	117.6	117.3	-130.13	6,539.6	236.3	372.5	190.7	181.83	2.049	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2C-7H-E168 - Hz - Plan #4												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-Geolink MWD												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)			
14,000.0	7,500.0	14,177.7	7,740.0	119.4	118.9	-129.69	6,634.7	233.8	376.1	190.6	185.54	2.027	
14,100.0	7,500.0	14,272.6	7,740.0	121.1	120.6	-129.12	6,729.5	229.7	381.0	191.4	189.63	2.009	
14,200.0	7,500.0	14,368.9	7,740.0	122.8	122.2	-128.41	6,825.6	224.0	387.2	193.1	194.10	1.995	
14,300.0	7,500.0	14,468.6	7,740.0	124.6	124.0	-127.66	6,925.1	217.7	393.7	194.9	198.74	1.981	
14,400.0	7,500.0	14,568.2	7,740.0	126.3	125.7	-126.93	7,024.5	211.4	400.3	196.9	203.34	1.969	
14,455.0	7,500.0	14,623.0	7,740.0	127.3	126.7	-126.55	7,079.3	207.9	403.9	198.1	205.86	1.962 SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2E-7H-E168 - Hz - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	90.00	0.0	10.1	10.1					
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	10.1	10.1	9.8	0.30	33.178		
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	10.1	10.1	9.4	0.65	15.436		
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	10.1	10.1	9.1	1.00	10.057		
400.0	400.0	400.0	400.0	0.7	0.7	90.00	0.0	10.1	10.1	8.7	1.35	7.459 CC, ES		
500.0	500.0	499.8	499.8	0.8	0.8	90.32	-0.1	10.9	10.9	9.2	1.70	6.438		
600.0	600.0	599.6	599.6	1.0	1.0	-5.73	-0.2	13.5	12.7	10.6	2.05	6.193		
700.0	700.0	699.3	699.2	1.2	1.2	-5.76	-0.5	17.9	14.4	12.0	2.40	6.020		
800.0	799.9	799.1	798.7	1.4	1.4	-6.03	-1.0	23.9	16.2	13.4	2.74	5.892		
900.0	899.7	898.8	898.1	1.6	1.6	-6.49	-1.5	31.7	17.9	14.8	3.09	5.793		
1,000.0	999.4	998.4	997.3	1.8	1.8	-7.07	-2.2	41.2	19.7	16.2	3.44	5.715		
1,026.5	1,025.7	1,024.8	1,023.6	1.8	1.9	-7.24	-2.4	44.0	20.1	16.6	3.53	5.697		
1,100.0	1,098.9	1,098.1	1,096.4	2.0	2.1	-7.59	-3.0	52.4	21.8	18.0	3.79	5.762		
1,200.0	1,198.5	1,198.1	1,195.7	2.2	2.3	-7.92	-3.8	64.2	24.5	20.3	4.14	5.913		
1,300.0	1,298.1	1,298.0	1,294.9	2.4	2.6	-8.19	-4.6	75.9	27.1	22.7	4.49	6.040		
1,400.0	1,397.7	1,398.0	1,394.2	2.7	2.8	-8.40	-5.4	87.7	29.8	25.0	4.85	6.148		
1,500.0	1,497.3	1,498.0	1,493.5	2.9	3.1	-8.58	-6.3	99.4	32.5	27.3	5.20	6.242		
1,600.0	1,596.8	1,597.9	1,592.7	3.1	3.3	-8.74	-7.1	111.2	35.1	29.6	5.55	6.323		
1,700.0	1,696.4	1,697.9	1,692.0	3.3	3.6	-8.87	-7.9	122.9	37.8	31.9	5.91	6.395		
1,800.0	1,796.0	1,797.9	1,791.3	3.6	3.9	-8.98	-8.7	134.7	40.4	34.2	6.26	6.458		
1,900.0	1,895.6	1,897.8	1,890.5	3.8	4.1	-9.09	-9.6	146.4	43.1	36.5	6.61	6.515		
2,000.0	1,995.2	1,997.8	1,989.8	4.0	4.4	-9.17	-10.4	158.2	45.7	38.8	6.96	6.566		
2,100.0	2,094.7	2,097.8	2,089.1	4.3	4.7	-9.25	-11.2	169.9	48.4	41.1	7.32	6.611		
2,200.0	2,194.3	2,197.7	2,188.3	4.5	4.9	-9.33	-12.0	181.7	51.0	43.4	7.67	6.653		
2,300.0	2,293.9	2,297.7	2,287.6	4.7	5.2	-9.39	-12.9	193.4	53.7	45.7	8.03	6.691		
2,400.0	2,393.5	2,397.6	2,386.9	5.0	5.5	-9.45	-13.7	205.2	56.3	48.0	8.38	6.725		
2,500.0	2,493.0	2,497.6	2,486.1	5.2	5.7	-9.50	-14.5	216.9	59.0	50.3	8.73	6.757		
2,600.0	2,592.6	2,597.6	2,585.4	5.4	6.0	-9.55	-15.3	228.6	61.7	52.6	9.09	6.786		
2,700.0	2,692.2	2,697.5	2,684.7	5.7	6.3	-9.59	-16.2	240.4	64.3	54.9	9.44	6.813		
2,800.0	2,791.8	2,797.5	2,783.9	5.9	6.5	-9.63	-17.0	252.1	67.0	57.2	9.79	6.838		
2,900.0	2,891.4	2,897.5	2,883.2	6.1	6.8	-9.67	-17.8	263.9	69.6	59.5	10.15	6.861		
3,000.0	2,990.9	2,997.4	2,982.5	6.4	7.1	-9.71	-18.6	275.6	72.3	61.8	10.50	6.883		
3,100.0	3,090.5	3,097.4	3,081.8	6.6	7.3	-9.74	-19.5	287.4	74.9	64.1	10.86	6.903		
3,200.0	3,190.1	3,197.4	3,181.0	6.8	7.6	-9.77	-20.3	299.1	77.6	66.4	11.21	6.922		
3,300.0	3,289.7	3,297.3	3,280.3	7.1	7.9	-9.80	-21.1	310.9	80.3	68.7	11.56	6.940		
3,400.0	3,389.2	3,397.3	3,379.6	7.3	8.1	-9.82	-21.9	322.6	82.9	71.0	11.92	6.957		
3,500.0	3,488.8	3,497.3	3,478.8	7.6	8.4	-9.85	-22.8	334.4	85.6	73.3	12.27	6.972		
3,600.0	3,588.4	3,597.2	3,578.1	7.8	8.7	-9.87	-23.6	346.1	88.2	75.6	12.63	6.987		
3,700.0	3,688.0	3,697.2	3,677.4	8.0	8.9	-9.89	-24.4	357.9	90.9	77.9	12.98	7.001		
3,800.0	3,787.6	3,797.2	3,776.6	8.3	9.2	-9.91	-25.2	369.6	93.5	80.2	13.33	7.014		
3,900.0	3,887.1	3,897.1	3,875.9	8.5	9.5	-9.93	-26.1	381.4	96.2	82.5	13.69	7.027		
4,000.0	3,986.7	3,997.1	3,975.2	8.7	9.8	-9.95	-26.9	393.1	98.8	84.8	14.04	7.039		
4,100.0	4,086.3	4,097.0	4,074.4	9.0	10.0	-9.97	-27.7	404.9	101.5	87.1	14.40	7.050		
4,200.0	4,185.9	4,197.0	4,173.7	9.2	10.3	-9.98	-28.5	416.6	104.2	89.4	14.75	7.061		
4,300.0	4,285.4	4,297.0	4,273.0	9.4	10.6	-10.00	-29.4	428.4	106.8	91.7	15.10	7.071		
4,400.0	4,385.0	4,396.9	4,372.2	9.7	10.8	-10.02	-30.2	440.1	109.5	94.0	15.46	7.081		
4,500.0	4,484.6	4,496.9	4,471.5	9.9	11.1	-10.03	-31.0	451.9	112.1	96.3	15.81	7.090		
4,600.0	4,584.2	4,596.9	4,570.8	10.2	11.4	-10.04	-31.8	463.6	114.8	98.6	16.17	7.099		
4,700.0	4,683.8	4,696.8	4,670.0	10.4	11.6	-10.06	-32.7	475.4	117.4	100.9	16.52	7.108		
4,800.0	4,783.3	4,796.8	4,769.3	10.6	11.9	-10.07	-33.5	487.1	120.1	103.2	16.88	7.116		
4,900.0	4,882.9	4,896.8	4,868.6	10.9	12.2	-10.08	-34.3	498.9	122.7	105.5	17.23	7.124		
5,000.0	4,982.5	4,996.7	4,967.9	11.1	12.5	-10.09	-35.1	510.6	125.4	107.8	17.58	7.131		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2E-7H-E168 - Hz - Plan #2											Offset Site Error: 0.0 ft		
Survey Program: O-Geolink 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	
5,100.0	5,082.1	5,096.7	5,067.1	11.3	12.7	-10.10	-35.9	522.4	128.1	110.1	17.94	7.139	
5,200.0	5,181.7	5,196.7	5,166.4	11.6	13.0	-10.11	-36.8	534.1	130.7	112.4	18.29	7.146	
5,300.0	5,281.2	5,296.6	5,265.7	11.8	13.3	-10.12	-37.6	545.9	133.4	114.7	18.65	7.152	
5,400.0	5,380.8	5,396.6	5,364.9	12.0	13.5	-10.13	-38.4	557.6	136.0	117.0	19.00	7.159	
5,500.0	5,480.4	5,496.6	5,464.2	12.3	13.8	-10.14	-39.2	569.4	138.7	119.3	19.36	7.165	
5,600.0	5,580.0	5,596.5	5,563.5	12.5	14.1	-10.15	-40.1	581.1	141.3	121.6	19.71	7.171	
5,700.0	5,679.5	5,696.5	5,662.7	12.8	14.3	-10.16	-40.9	592.9	144.0	123.9	20.06	7.177	
5,800.0	5,779.1	5,796.4	5,762.0	13.0	14.6	-10.17	-41.7	604.6	146.6	126.2	20.42	7.182	
5,900.0	5,878.7	5,896.4	5,861.3	13.2	14.9	-10.18	-42.5	616.4	149.3	128.5	20.77	7.187	
6,000.0	5,978.3	5,996.4	5,960.5	13.5	15.2	-10.18	-43.4	628.1	152.0	130.8	21.13	7.193	
6,100.0	6,077.9	6,096.3	6,059.8	13.7	15.4	-10.19	-44.2	639.9	154.6	133.1	21.48	7.198	
6,200.0	6,177.4	6,196.3	6,159.1	13.9	15.7	-10.20	-45.0	651.6	157.3	135.4	21.84	7.203	
6,300.0	6,277.0	6,296.3	6,258.3	14.2	16.0	-10.21	-45.8	663.4	159.9	137.7	22.19	7.207	
6,400.0	6,376.6	6,396.2	6,357.6	14.4	16.2	-10.21	-46.7	675.1	162.6	140.0	22.54	7.212	
6,500.0	6,476.2	6,496.2	6,456.9	14.7	16.5	-10.22	-47.5	686.9	165.2	142.3	22.90	7.216	
6,600.0	6,575.7	6,596.2	6,556.1	14.9	16.8	-10.23	-48.3	698.6	167.9	144.6	23.25	7.220	
6,700.0	6,675.3	6,696.1	6,655.4	15.1	17.0	-10.23	-49.1	710.4	170.6	146.9	23.61	7.225	
6,800.0	6,774.9	6,796.1	6,754.7	15.4	17.3	-10.24	-50.0	722.1	173.2	149.2	23.96	7.229	
6,900.0	6,874.5	6,896.1	6,854.0	15.6	17.6	-10.24	-50.8	733.9	175.9	151.5	24.32	7.232	
6,949.9	6,924.1	6,945.9	6,903.5	15.7	17.7	-10.25	-51.2	739.7	177.2	152.7	24.49	7.234	
7,000.0	6,974.0	6,996.0	6,953.2	15.8	17.9	36.54	-51.6	745.6	178.4	153.7	24.63	7.243	
7,050.0	7,023.4	7,045.5	7,002.4	15.9	18.0	58.96	-52.0	751.4	179.4	154.7	24.69	7.263	
7,100.0	7,072.1	7,094.3	7,050.8	16.0	18.1	71.13	-52.4	757.2	180.7	155.9	24.77	7.293	
7,150.0	7,119.7	7,142.0	7,098.2	16.2	18.3	80.12	-52.8	762.8	183.0	158.0	24.94	7.337	
7,200.0	7,165.9	7,188.2	7,144.1	16.3	18.4	87.95	-53.2	768.2	187.2	162.0	25.25	7.416	
7,250.0	7,210.2	7,235.5	7,191.0	16.4	18.5	95.38	-53.0	773.8	194.3	168.6	25.69	7.564	
7,300.0	7,252.5	7,286.8	7,241.8	16.5	18.6	102.24	-48.9	779.7	203.7	177.6	26.19	7.779	
7,350.0	7,292.2	7,340.7	7,294.5	16.7	18.8	108.32	-39.6	785.9	215.0	188.4	26.63	8.074	
7,400.0	7,329.2	7,397.6	7,349.0	16.8	18.9	113.73	-24.5	792.2	227.6	200.7	26.92	8.454	
7,450.0	7,363.2	7,457.8	7,404.7	17.0	19.1	118.52	-2.6	798.6	241.1	214.0	27.04	8.917	
7,500.0	7,393.8	7,521.8	7,461.1	17.3	19.2	122.75	26.9	805.0	254.9	227.9	26.98	9.448	
7,550.0	7,421.0	7,590.0	7,517.1	17.5	19.4	126.47	65.1	811.3	268.6	241.8	26.76	10.036	
7,600.0	7,444.3	7,662.6	7,571.4	17.8	19.7	129.69	112.9	817.3	281.6	255.2	26.42	10.660	
7,650.0	7,463.8	7,739.9	7,622.1	18.2	20.0	132.44	170.8	822.8	293.4	267.4	26.00	11.287	
7,700.0	7,479.2	7,821.7	7,666.9	18.5	20.4	134.72	239.1	827.5	303.6	278.0	25.56	11.876	
7,750.0	7,490.4	7,907.7	7,703.1	18.9	20.9	136.51	317.0	831.1	311.5	286.3	25.17	12.377	
7,800.0	7,497.4	7,997.2	7,727.9	19.3	21.5	137.81	402.8	833.3	316.8	292.0	24.88	12.734	
7,850.0	7,500.0	8,088.8	7,739.4	19.8	22.2	138.61	493.6	833.9	319.3	294.5	24.76	12.894	
7,855.2	7,500.0	8,098.4	7,739.8	19.9	22.2	138.66	503.2	833.8	319.3	294.6	24.76	12.899	
7,900.0	7,500.0	8,151.0	7,740.0	20.3	22.7	138.82	555.8	833.4	318.9	293.4	25.48	12.514	
8,000.0	7,500.0	8,251.0	7,740.0	21.3	23.6	139.08	655.7	832.5	317.6	290.6	27.05	11.742	
8,100.0	7,500.0	8,350.9	7,740.0	22.5	24.6	139.35	755.7	831.6	316.4	287.7	28.69	11.027	
8,200.0	7,500.0	8,450.9	7,740.0	23.7	25.7	139.61	855.7	830.8	315.1	284.7	30.39	10.369	
8,300.0	7,500.0	8,550.9	7,740.0	25.0	26.9	139.88	955.7	829.9	313.9	281.8	32.13	9.769	
8,400.0	7,500.0	8,650.9	7,740.0	26.3	28.1	140.15	1,055.7	829.0	312.6	278.7	33.90	9.222	
8,500.0	7,500.0	8,750.9	7,740.0	27.7	29.4	140.42	1,155.6	828.2	311.4	275.7	35.69	8.725	
8,600.0	7,500.0	8,850.8	7,740.0	29.1	30.7	140.69	1,255.6	827.3	310.2	272.7	37.50	8.272	
8,700.0	7,500.0	8,950.8	7,740.0	30.5	32.1	140.97	1,355.6	826.4	309.0	269.7	39.31	7.860	
8,800.0	7,500.0	9,050.8	7,740.0	32.0	33.5	141.24	1,455.6	825.5	307.8	266.7	41.13	7.484	
8,900.0	7,500.0	9,150.8	7,740.0	33.5	34.9	141.52	1,555.5	824.7	306.6	263.6	42.94	7.140	
9,000.0	7,500.0	9,250.8	7,740.0	35.1	36.4	141.81	1,655.5	823.8	305.4	260.6	44.74	6.825	
9,100.0	7,500.0	9,350.8	7,740.0	36.6	37.9	142.09	1,755.5	822.9	304.2	257.7	46.54	6.537	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2E-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	
9,200.0	7,500.0	9,450.7	7,740.0	38.2	39.4	142.38	1,855.5	822.0	303.0	254.7	48.32	6.272	
9,300.0	7,500.0	9,550.7	7,740.0	39.8	40.9	142.67	1,955.5	821.2	301.9	251.8	50.08	6.027	
9,400.0	7,500.0	9,650.7	7,740.0	41.4	42.5	142.96	2,055.4	820.3	300.7	248.9	51.83	5.801	
9,500.0	7,500.0	9,750.7	7,740.0	43.0	44.0	143.25	2,155.4	819.4	299.6	246.0	53.56	5.593	
9,600.0	7,500.0	9,850.7	7,740.0	44.6	45.6	143.54	2,255.4	818.6	298.4	243.1	55.27	5.399	
9,700.0	7,500.0	9,950.6	7,740.0	46.2	47.2	143.84	2,355.4	817.7	297.3	240.3	56.95	5.220	
9,800.0	7,500.0	10,050.6	7,740.0	47.9	48.8	144.14	2,455.3	816.8	296.1	237.5	58.61	5.052	
9,900.0	7,500.0	10,150.6	7,740.0	49.5	50.4	144.44	2,555.3	815.9	295.0	234.8	60.25	4.897	
10,000.0	7,500.0	10,250.6	7,740.0	51.2	52.0	144.75	2,655.3	815.1	293.9	232.1	61.86	4.751	
10,046.2	7,500.0	10,296.8	7,740.0	51.9	52.8	144.89	2,701.5	814.7	293.4	230.8	62.59	4.687	
10,100.0	7,500.0	10,350.6	7,740.0	52.8	53.7	145.01	2,755.3	814.2	293.0	229.6	63.37	4.623	
10,156.2	7,500.0	10,406.8	7,740.0	53.8	54.6	145.05	2,811.5	813.7	292.8	228.5	64.27	4.556	
10,200.0	7,500.0	10,450.6	7,740.0	54.5	55.3	145.03	2,855.3	813.3	292.9	227.8	65.05	4.502	
10,300.0	7,500.0	10,550.6	7,740.0	56.1	56.9	144.77	2,955.3	812.4	293.8	226.7	67.09	4.380	
10,400.0	7,500.0	10,650.5	7,740.0	57.8	58.6	144.26	3,055.2	811.6	295.8	226.3	69.50	4.256	
10,500.0	7,500.0	10,750.4	7,740.0	59.5	60.2	143.48	3,155.1	810.7	298.8	226.5	72.30	4.133	
10,600.0	7,500.0	10,850.1	7,740.0	61.1	61.9	142.47	3,254.8	809.8	303.0	227.5	75.47	4.014	
10,700.0	7,500.0	10,949.8	7,740.0	62.8	63.6	141.25	3,354.4	809.0	308.3	229.3	79.00	3.902	
10,800.0	7,500.0	11,049.2	7,740.0	64.4	65.2	139.84	3,453.9	808.1	314.9	232.0	82.85	3.801	
10,906.2	7,500.0	11,154.6	7,740.0	66.2	67.0	138.16	3,559.3	807.2	323.4	236.1	87.25	3.706	
11,000.0	7,500.0	11,247.6	7,740.0	67.7	68.5	136.59	3,652.3	806.4	331.7	239.9	91.76	3.615	
11,100.0	7,500.0	11,346.8	7,740.0	69.4	70.2	135.01	3,751.4	805.5	340.8	244.3	96.53	3.531	
11,200.0	7,500.0	11,443.8	7,740.0	71.0	71.8	133.51	3,848.4	804.9	350.4	249.2	101.21	3.462	
11,256.2	7,500.0	11,497.0	7,740.0	72.0	72.7	132.66	3,901.6	805.1	356.3	252.4	103.87	3.430	
11,300.0	7,500.0	11,538.4	7,740.0	72.7	73.5	131.96	3,943.0	805.6	361.1	254.9	106.24	3.399	
11,400.0	7,500.0	11,635.1	7,740.0	74.4	75.1	130.44	4,039.7	807.8	372.1	260.5	111.62	3.334	
11,500.0	7,500.0	11,734.3	7,740.0	76.1	76.8	129.12	4,138.9	810.2	382.1	265.3	116.78	3.272	
11,600.0	7,500.0	11,833.6	7,740.0	77.8	78.5	128.03	4,238.2	812.6	390.9	269.3	121.62	3.214	
11,700.0	7,500.0	11,933.2	7,740.0	79.5	80.2	127.14	4,337.7	815.0	398.5	272.3	126.19	3.158	
11,800.0	7,500.0	12,032.9	7,740.0	81.2	81.9	126.44	4,437.4	817.4	404.7	274.2	130.48	3.101	
11,900.0	7,500.0	12,132.7	7,740.0	82.9	83.6	125.91	4,537.2	819.9	409.6	275.0	134.51	3.045	
12,000.0	7,500.0	12,232.6	7,740.0	84.7	85.3	125.54	4,637.0	822.3	413.0	274.7	138.29	2.987	
12,100.0	7,500.0	12,332.6	7,740.0	86.4	87.0	125.33	4,737.0	824.7	415.1	273.3	141.80	2.927	
12,169.2	7,500.0	12,401.7	7,740.0	87.6	88.2	125.26	4,806.1	826.4	415.7	271.6	144.08	2.885	
12,200.0	7,500.0	12,432.5	7,740.0	88.1	88.7	125.25	4,836.9	827.2	415.8	270.8	144.97	2.868	
12,300.0	7,500.0	12,532.5	7,740.0	89.8	90.5	125.22	4,936.9	829.6	416.2	268.3	147.87	2.814	
12,400.0	7,500.0	12,632.5	7,740.0	91.6	92.2	125.18	5,036.9	832.0	416.6	265.8	150.78	2.763	
12,500.0	7,500.0	12,732.5	7,740.0	93.3	93.9	125.14	5,136.8	834.5	416.9	263.2	153.69	2.713	
12,600.0	7,500.0	12,832.5	7,740.0	95.0	95.6	125.11	5,236.8	836.9	417.3	260.7	156.61	2.665	
12,700.0	7,500.0	12,932.5	7,740.0	96.8	97.4	125.07	5,336.8	839.3	417.7	258.2	159.53	2.618	
12,800.0	7,500.0	13,032.5	7,740.0	98.5	99.1	125.03	5,436.8	841.8	418.1	255.6	162.45	2.574	
12,900.0	7,500.0	13,132.5	7,740.0	100.2	100.8	125.00	5,536.7	844.2	418.4	253.1	165.37	2.530	
13,000.0	7,500.0	13,232.5	7,740.0	102.0	102.5	124.96	5,636.7	846.6	418.8	250.5	168.30	2.489	
13,100.0	7,500.0	13,332.5	7,740.0	103.7	104.3	124.93	5,736.7	849.1	419.2	248.0	171.23	2.448	
13,200.0	7,500.0	13,432.5	7,740.0	105.4	106.0	124.89	5,836.6	851.5	419.6	245.4	174.17	2.409	
13,300.0	7,500.0	13,532.5	7,740.0	107.2	107.7	124.85	5,936.6	853.9	420.0	242.9	177.10	2.371	
13,400.0	7,500.0	13,632.5	7,740.0	108.9	109.4	124.82	6,036.6	856.3	420.3	240.3	180.04	2.335	
13,500.0	7,500.0	13,732.5	7,740.0	110.7	111.2	124.78	6,136.5	858.8	420.7	237.7	182.99	2.299	
13,600.0	7,500.0	13,832.5	7,740.0	112.4	112.9	124.75	6,236.5	861.2	421.1	235.2	185.93	2.265	
13,700.0	7,500.0	13,932.5	7,740.0	114.1	114.6	124.71	6,336.5	863.6	421.5	232.6	188.88	2.231	
13,800.0	7,500.0	14,032.5	7,740.0	115.9	116.4	124.68	6,436.5	866.1	421.8	230.0	191.83	2.199	
13,900.0	7,500.0	14,132.5	7,740.0	117.6	118.1	124.64	6,536.4	868.5	422.2	227.4	194.79	2.168	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2E-7H-E168 - Hz - Plan #2					Offset Site Error:		0.0 ft		
Survey Program: 0-Geolink MWD																				Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance															
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	Centre +E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor			Warning							
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)												
14,000.0	7,500.0	14,232.5	7,740.0	119.4	119.8	124.61	6,636.4	870.9	422.6	224.9	197.74	2.137										
14,100.0	7,500.0	14,332.5	7,740.0	121.1	121.6	124.57	6,736.4	873.4	423.0	222.3	200.70	2.107										
14,200.0	7,500.0	14,432.5	7,740.0	122.8	123.3	124.53	6,836.3	875.8	423.4	219.7	203.67	2.079										
14,300.0	7,500.0	14,532.5	7,740.0	124.6	125.1	124.50	6,936.3	878.2	423.7	217.1	206.63	2.051										
14,400.0	7,500.0	14,632.5	7,740.0	126.3	126.8	124.46	7,036.3	880.7	424.1	214.5	209.60	2.023										
14,455.0	7,500.0	14,687.5	7,740.0	127.3	127.7	124.44	7,091.3	882.0	424.3	213.1	211.23	2.009 SF										

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2F-7H-E168 - Hz - Plan #3											Offset Site Error: 0.0 ft		
Survey Program: 0-Geolink 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	91.04	-0.4	20.2	20.2				
100.0	100.0	100.0	100.0	0.2	0.2	91.04	-0.4	20.2	20.2	19.9	0.30	66.366	CC, ES
200.0	200.0	200.0	200.0	0.3	0.3	91.04	-0.4	20.2	20.2	19.5	0.65	30.876	
300.0	300.0	300.0	300.0	0.5	0.5	91.04	-0.4	20.2	20.2	19.2	1.00	20.118	
400.0	400.0	399.6	399.6	0.7	0.7	90.67	-0.2	21.0	21.0	19.7	1.35	15.555	
500.0	500.0	499.2	499.2	0.8	0.9	89.73	0.1	23.6	23.6	21.9	1.70	13.852	
600.0	600.0	598.7	598.6	1.0	1.0	-8.08	0.7	27.9	27.0	25.0	2.05	13.212	
700.0	700.0	698.2	697.8	1.2	1.2	-9.99	1.5	33.9	30.5	28.1	2.39	12.742	
800.0	799.9	797.5	796.9	1.4	1.4	-12.22	2.6	41.5	34.0	31.3	2.74	12.411	
900.0	899.7	896.8	895.8	1.6	1.7	-14.68	3.9	50.9	37.6	34.6	3.09	12.180	
1,000.0	999.4	996.1	994.4	1.8	1.9	-17.29	5.4	62.0	41.4	37.9	3.44	12.023	
1,026.5	1,025.7	1,022.3	1,020.4	1.8	2.0	-18.00	5.9	65.2	42.4	38.9	3.54	11.990	
1,100.0	1,098.9	1,095.2	1,092.7	2.0	2.2	-19.80	7.2	74.7	45.7	41.9	3.80	12.033	
1,200.0	1,198.5	1,194.2	1,190.6	2.2	2.5	-21.64	9.2	89.1	51.8	47.6	4.16	12.443	
1,300.0	1,298.1	1,292.9	1,288.0	2.4	2.8	-22.84	11.4	105.2	59.5	55.0	4.52	13.166	
1,400.0	1,397.7	1,391.4	1,384.8	2.7	3.1	-23.53	13.8	122.8	69.1	64.2	4.89	14.127	
1,500.0	1,497.3	1,490.5	1,482.0	2.9	3.5	-23.89	16.5	141.8	79.8	74.6	5.25	15.189	
1,600.0	1,596.8	1,589.9	1,579.5	3.1	3.8	-24.17	19.1	160.9	90.7	85.0	5.62	16.120	
1,700.0	1,696.4	1,689.3	1,677.0	3.3	4.2	-24.38	21.7	180.0	101.5	95.5	5.99	16.934	
1,800.0	1,796.0	1,788.7	1,774.6	3.6	4.6	-24.56	24.4	199.1	112.3	106.0	6.36	17.652	
1,900.0	1,895.6	1,888.1	1,872.1	3.8	4.9	-24.70	27.0	218.2	123.2	116.4	6.73	18.288	
2,000.0	1,995.2	1,987.5	1,969.6	4.0	5.3	-24.82	29.7	237.3	134.0	126.9	7.11	18.857	
2,100.0	2,094.7	2,086.9	2,067.1	4.3	5.7	-24.92	32.3	256.4	144.8	137.3	7.48	19.369	
2,200.0	2,194.3	2,186.3	2,164.6	4.5	6.1	-25.01	34.9	275.6	155.7	147.8	7.85	19.831	
2,300.0	2,293.9	2,285.7	2,262.2	4.7	6.4	-25.08	37.6	294.7	166.5	158.3	8.22	20.250	
2,400.0	2,393.5	2,385.2	2,359.7	5.0	6.8	-25.15	40.2	313.8	177.3	168.7	8.59	20.632	
2,500.0	2,493.0	2,484.6	2,457.2	5.2	7.2	-25.21	42.9	332.9	188.2	179.2	8.97	20.982	
2,600.0	2,592.6	2,584.0	2,554.7	5.4	7.6	-25.26	45.5	352.0	199.0	189.7	9.34	21.303	
2,700.0	2,692.2	2,683.4	2,652.2	5.7	8.0	-25.31	48.2	371.1	209.8	200.1	9.72	21.600	
2,800.0	2,791.8	2,782.8	2,749.8	5.9	8.3	-25.35	50.8	390.2	220.7	210.6	10.09	21.873	
2,900.0	2,891.4	2,882.2	2,847.3	6.1	8.7	-25.39	53.4	409.3	231.5	221.1	10.46	22.127	
3,000.0	2,990.9	2,981.6	2,944.8	6.4	9.1	-25.43	56.1	428.4	242.4	231.5	10.84	22.364	
3,100.0	3,090.5	3,081.0	3,042.3	6.6	9.5	-25.46	58.7	447.5	253.2	242.0	11.21	22.584	
3,200.0	3,190.1	3,180.4	3,139.9	6.8	9.9	-25.49	61.4	466.7	264.0	252.4	11.59	22.789	
3,300.0	3,289.7	3,279.9	3,237.4	7.1	10.2	-25.52	64.0	485.8	274.9	262.9	11.96	22.982	
3,400.0	3,389.2	3,379.3	3,334.9	7.3	10.6	-25.54	66.6	504.9	285.7	273.4	12.33	23.163	
3,500.0	3,488.8	3,478.7	3,432.4	7.6	11.0	-25.57	69.3	524.0	296.5	283.8	12.71	23.333	
3,600.0	3,588.4	3,578.1	3,529.9	7.8	11.4	-25.59	71.9	543.1	307.4	294.3	13.08	23.493	
3,700.0	3,688.0	3,677.5	3,627.5	8.0	11.8	-25.61	74.6	562.2	318.2	304.8	13.46	23.644	
3,800.0	3,787.6	3,776.9	3,725.0	8.3	12.1	-25.63	77.2	581.3	329.1	315.2	13.83	23.786	
3,900.0	3,887.1	3,876.3	3,822.5	8.5	12.5	-25.64	79.9	600.4	339.9	325.7	14.21	23.921	
4,000.0	3,986.7	3,975.7	3,920.0	8.7	12.9	-25.66	82.5	619.5	350.7	336.2	14.58	24.049	
4,100.0	4,086.3	4,075.1	4,017.5	9.0	13.3	-25.68	85.1	638.6	361.6	346.6	14.96	24.171	
4,200.0	4,185.9	4,174.5	4,115.1	9.2	13.7	-25.69	87.8	657.8	372.4	357.1	15.33	24.286	
4,300.0	4,285.4	4,274.0	4,212.6	9.4	14.1	-25.70	90.4	676.9	383.3	367.5	15.71	24.396	
4,400.0	4,385.0	4,373.4	4,310.1	9.7	14.4	-25.72	93.1	696.0	394.1	378.0	16.08	24.501	
4,500.0	4,484.6	4,472.8	4,407.6	9.9	14.8	-25.73	95.7	715.1	404.9	388.5	16.46	24.601	
4,600.0	4,584.2	4,572.2	4,505.1	10.2	15.2	-25.74	98.4	734.2	415.8	398.9	16.84	24.696	
4,700.0	4,683.8	4,671.6	4,602.7	10.4	15.6	-25.75	101.0	753.3	426.6	409.4	17.21	24.787	
4,800.0	4,783.3	4,771.0	4,700.2	10.6	16.0	-25.76	103.6	772.4	437.4	419.9	17.59	24.874	
4,900.0	4,882.9	4,870.4	4,797.7	10.9	16.4	-25.77	106.3	791.5	448.3	430.3	17.96	24.958	
5,000.0	4,982.5	4,969.8	4,895.2	11.1	16.7	-25.78	108.9	810.6	459.1	440.8	18.34	25.038	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2F-7H-E168 - Hz - Plan #3												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	
5,100.0	5,082.1	5,069.2	4,992.8	11.3	17.1	-25.79	111.6	829.7	470.0	451.2	18.71	25.115	
5,200.0	5,181.7	5,168.7	5,090.3	11.6	17.5	-25.80	114.2	848.9	480.8	461.7	19.09	25.189	
5,300.0	5,281.2	5,268.1	5,187.8	11.8	17.9	-25.81	116.8	868.0	491.6	472.2	19.46	25.259	
5,400.0	5,380.8	5,367.5	5,285.3	12.0	18.3	-25.82	119.5	887.1	502.5	482.6	19.84	25.328	
5,500.0	5,480.4	5,466.9	5,382.8	12.3	18.7	-25.83	122.1	906.2	513.3	493.1	20.21	25.393	
5,600.0	5,580.0	5,566.3	5,480.4	12.5	19.0	-25.83	124.8	925.3	524.2	503.6	20.59	25.456	
5,700.0	5,679.5	5,665.7	5,577.9	12.8	19.4	-25.84	127.4	944.4	535.0	514.0	20.97	25.517	
5,800.0	5,779.1	5,765.1	5,675.4	13.0	19.8	-25.85	130.1	963.5	545.8	524.5	21.34	25.576	
5,900.0	5,878.7	5,864.5	5,772.9	13.2	20.2	-25.85	132.7	982.6	556.7	535.0	21.72	25.633	
6,000.0	5,978.3	5,963.9	5,870.4	13.5	20.6	-25.86	135.3	1,001.7	567.5	545.4	22.09	25.687	
6,100.0	6,077.9	6,063.4	5,968.0	13.7	21.0	-25.87	138.0	1,020.8	578.3	555.9	22.47	25.740	
6,200.0	6,177.4	6,162.8	6,065.5	13.9	21.3	-25.87	140.6	1,040.0	589.2	566.3	22.84	25.792	
6,300.0	6,277.0	6,262.2	6,163.0	14.2	21.7	-25.88	143.3	1,059.1	600.0	576.8	23.22	25.841	
6,400.0	6,376.6	6,361.6	6,260.5	14.4	22.1	-25.88	145.9	1,078.2	610.9	587.3	23.60	25.889	
6,500.0	6,476.2	6,461.0	6,358.0	14.7	22.5	-25.89	148.5	1,097.3	621.7	597.7	23.97	25.935	
6,600.0	6,575.7	6,560.4	6,455.6	14.9	22.9	-25.89	151.2	1,116.4	632.5	608.2	24.35	25.980	
6,700.0	6,675.3	6,659.8	6,553.1	15.1	23.3	-25.90	153.8	1,135.5	643.4	618.7	24.72	26.024	
6,800.0	6,774.9	6,759.2	6,650.6	15.4	23.6	-25.90	156.5	1,154.6	654.2	629.1	25.10	26.066	
6,900.0	6,874.5	6,858.6	6,748.1	15.6	24.0	-25.91	159.1	1,173.7	665.1	639.6	25.47	26.107	
6,949.9	6,924.1	6,908.2	6,796.8	15.7	24.2	-25.91	160.4	1,183.3	670.5	644.8	25.66	26.127	
7,000.0	6,974.0	6,958.1	6,845.7	15.8	24.4	20.03	161.8	1,192.8	675.1	649.3	25.87	26.093	
7,050.0	7,023.4	7,007.6	6,894.2	15.9	24.6	40.71	163.1	1,202.4	678.3	652.4	25.94	26.151	
7,100.0	7,072.1	7,056.5	6,942.2	16.0	24.8	50.34	164.4	1,211.8	680.1	654.2	25.88	26.283	
7,150.0	7,119.7	7,095.0	6,979.9	16.2	24.9	55.88	166.0	1,219.1	680.9	655.2	25.74	26.448	
7,200.0	7,165.9	7,130.6	7,014.7	16.3	25.1	59.60	169.7	1,226.0	681.4	655.8	25.59	26.628	
7,250.0	7,210.2	7,166.7	7,049.6	16.4	25.2	62.43	175.7	1,232.9	681.8	656.3	25.45	26.788	
7,300.0	7,252.5	7,200.0	7,081.4	16.5	25.4	64.69	183.3	1,239.2	682.0	656.7	25.36	26.891	
7,350.0	7,292.2	7,240.3	7,119.3	16.7	25.6	66.86	194.9	1,246.7	682.2	656.8	25.36	26.900	
7,400.0	7,329.2	7,278.1	7,154.0	16.8	25.7	68.77	208.2	1,253.6	682.3	656.8	25.48	26.781	
7,450.0	7,363.2	7,316.5	7,188.3	17.0	25.9	70.59	224.1	1,260.4	682.5	656.7	25.74	26.517	
7,500.0	7,393.8	7,355.8	7,222.2	17.3	26.1	72.35	242.7	1,267.2	682.8	656.6	26.16	26.104	
7,550.0	7,421.0	7,396.0	7,255.5	17.5	26.3	74.08	264.2	1,273.9	683.2	656.5	26.73	25.555	
7,600.0	7,444.3	7,437.3	7,288.1	17.8	26.5	75.79	288.7	1,280.5	683.9	656.4	27.47	24.897	
7,650.0	7,463.8	7,479.9	7,319.7	18.2	26.8	77.50	316.4	1,287.0	684.8	656.5	28.33	24.169	
7,700.0	7,479.2	7,523.8	7,350.2	18.5	27.0	79.20	347.4	1,293.2	686.0	656.7	29.31	23.409	
7,750.0	7,490.4	7,569.3	7,379.2	18.9	27.3	80.91	381.9	1,299.2	687.6	657.3	30.35	22.654	
7,800.0	7,497.4	7,616.7	7,406.5	19.3	27.6	82.62	420.2	1,304.9	689.6	658.1	31.45	21.929	
7,850.0	7,500.0	7,666.2	7,431.5	19.8	28.0	84.34	462.6	1,310.1	691.9	659.3	32.55	21.255	
7,855.2	7,500.0	7,671.5	7,434.0	19.9	28.0	84.52	467.2	1,310.6	692.1	659.5	32.66	21.189	
7,900.0	7,500.0	7,719.0	7,454.2	20.3	28.3	86.21	510.0	1,315.0	694.5	660.8	33.69	20.615	
8,000.0	7,500.0	7,837.6	7,488.8	21.3	29.2	89.09	622.9	1,322.7	699.0	662.8	36.27	19.274	
8,100.0	7,500.0	7,963.2	7,500.0	22.5	30.3	90.00	747.8	1,326.0	700.5	661.3	39.19	17.874	
8,200.0	7,500.0	8,063.2	7,500.0	23.7	31.2	90.00	847.8	1,326.9	700.3	658.4	41.95	16.694	
8,300.0	7,500.0	8,163.2	7,500.0	25.0	32.2	90.00	947.8	1,327.8	700.2	655.4	44.81	15.625	
8,400.0	7,500.0	8,263.2	7,500.0	26.3	33.2	90.00	1,047.8	1,328.6	700.0	652.2	47.76	14.658	
8,500.0	7,500.0	8,363.2	7,500.0	27.7	34.3	90.00	1,147.8	1,329.5	699.8	649.1	50.77	13.783	
8,600.0	7,500.0	8,463.2	7,500.0	29.1	35.4	90.00	1,247.8	1,330.4	699.6	645.8	53.85	12.993	
8,700.0	7,500.0	8,563.2	7,500.0	30.5	36.6	90.00	1,347.8	1,331.3	699.5	642.5	56.97	12.277	
8,800.0	7,500.0	8,663.2	7,500.0	32.0	37.9	90.00	1,447.8	1,332.1	699.3	639.2	60.15	11.627	
8,900.0	7,500.0	8,763.2	7,500.0	33.5	39.1	90.00	1,547.8	1,333.0	699.1	635.8	63.35	11.036	
9,000.0	7,500.0	8,863.2	7,500.0	35.1	40.5	90.00	1,647.8	1,333.9	699.0	632.4	66.58	10.497	
9,100.0	7,500.0	8,963.2	7,500.0	36.6	41.8	90.00	1,747.8	1,334.7	698.8	628.9	69.85	10.004	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2F-7H-E168 - Hz - Plan #3												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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
9,200.0	7,500.0	9,063.2	7,500.0	38.2	43.2	90.00	1,847.8	1,335.6	698.6	625.5	73.13	9.553	
9,300.0	7,500.0	9,163.2	7,500.0	39.8	44.6	90.00	1,947.8	1,336.5	698.4	622.0	76.44	9.137	
9,400.0	7,500.0	9,263.2	7,500.0	41.4	46.0	90.00	2,047.8	1,337.4	698.3	618.5	79.76	8.755	
9,500.0	7,500.0	9,363.2	7,500.0	43.0	47.5	90.00	2,147.8	1,338.2	698.1	615.0	83.09	8.401	
9,600.0	7,500.0	9,463.2	7,500.0	44.6	48.9	90.00	2,247.7	1,339.1	697.9	611.5	86.44	8.073	
9,700.0	7,500.0	9,564.8	7,500.0	46.2	50.4	90.00	2,349.3	1,340.0	697.7	607.9	89.83	7.767	
9,800.0	7,500.0	9,678.7	7,500.0	47.9	52.1	90.00	2,463.2	1,339.6	696.3	602.9	93.44	7.452	
9,900.0	7,500.0	9,792.4	7,500.0	49.5	53.8	90.00	2,576.9	1,336.9	692.9	595.9	97.06	7.139	
10,000.0	7,500.0	9,905.9	7,500.0	51.2	55.5	90.00	2,690.3	1,332.0	687.6	586.9	100.68	6.829	
10,046.2	7,500.0	9,958.3	7,500.0	51.9	56.3	90.00	2,742.5	1,329.0	684.4	582.1	102.36	6.687	
10,100.0	7,500.0	10,019.2	7,500.0	52.8	57.2	90.00	2,803.3	1,324.9	680.5	576.5	104.01	6.543	
10,200.0	7,500.0	10,132.3	7,500.0	54.5	58.9	90.00	2,916.0	1,315.6	673.0	565.9	107.06	6.286	
10,300.0	7,500.0	10,240.1	7,500.0	56.1	60.6	90.00	3,023.3	1,304.7	665.4	555.4	110.00	6.049	
10,400.0	7,500.0	10,339.9	7,500.0	57.8	62.1	90.00	3,122.6	1,294.3	659.2	546.4	112.78	5.845	
10,500.0	7,500.0	10,439.8	7,500.0	59.5	63.6	90.00	3,221.9	1,283.8	654.7	539.2	115.54	5.667	
10,600.0	7,500.0	10,539.8	7,500.0	61.1	65.2	90.00	3,321.4	1,273.4	652.0	533.7	118.28	5.512	
10,700.0	7,500.0	10,639.8	7,500.0	62.8	66.7	90.00	3,420.8	1,262.9	651.0	530.0	120.99	5.381	
10,706.2	7,500.0	10,646.0	7,500.0	62.9	66.8	90.00	3,427.0	1,262.3	651.0	529.9	121.15	5.374	
10,800.0	7,500.0	10,739.8	7,500.0	64.4	68.3	90.00	3,520.2	1,252.5	651.8	528.1	123.66	5.271	
10,906.2	7,500.0	10,845.9	7,500.0	66.2	70.0	90.00	3,625.8	1,241.4	654.5	528.0	126.47	5.175	
11,000.0	7,500.0	10,939.7	7,500.0	67.7	71.4	90.00	3,719.1	1,231.6	657.8	528.1	129.71	5.071	
11,100.0	7,500.0	11,039.6	7,500.0	69.4	73.0	90.00	3,818.5	1,221.1	661.3	528.1	133.16	4.966	
11,200.0	7,500.0	11,139.6	7,500.0	71.0	74.6	90.00	3,917.8	1,210.7	664.8	528.2	136.62	4.866	
11,256.2	7,500.0	11,195.7	7,500.0	72.0	75.5	90.00	3,973.7	1,204.8	666.7	528.2	138.56	4.812	
11,300.0	7,500.0	11,239.5	7,500.0	72.7	76.2	90.00	4,017.2	1,200.2	668.1	527.7	140.44	4.757	
11,400.0	7,500.0	11,339.5	7,500.0	74.4	77.9	90.00	4,116.7	1,189.8	669.9	525.2	144.70	4.630	
11,500.0	7,500.0	11,439.5	7,500.0	76.1	79.5	90.00	4,216.1	1,179.3	670.1	521.1	148.92	4.499	
11,600.0	7,500.0	11,539.5	7,500.0	77.8	81.1	90.00	4,315.6	1,168.9	668.4	515.3	153.11	4.366	
11,700.0	7,500.0	11,639.4	7,500.0	79.5	82.7	90.00	4,415.0	1,158.4	665.0	507.8	157.25	4.229	
11,800.0	7,500.0	11,739.3	7,500.0	81.2	84.4	90.00	4,514.3	1,148.0	659.9	498.6	161.34	4.090	
11,900.0	7,500.0	11,835.3	7,500.0	82.9	86.0	90.00	4,609.7	1,138.1	653.1	487.8	165.32	3.951	
12,000.0	7,500.0	11,924.8	7,500.0	84.7	87.4	90.00	4,698.9	1,129.9	645.9	476.8	169.14	3.819	
12,100.0	7,500.0	12,014.5	7,500.0	86.4	88.9	90.00	4,788.3	1,123.2	638.5	465.6	172.91	3.692	
12,169.2	7,500.0	12,076.6	7,500.0	87.6	90.0	90.00	4,850.3	1,119.3	633.2	457.7	175.49	3.608	
12,200.0	7,500.0	12,100.0	7,500.0	88.1	90.4	90.00	4,873.7	1,118.0	631.0	454.5	176.43	3.576	
12,300.0	7,500.0	12,194.2	7,500.0	89.8	91.9	90.00	4,967.8	1,113.8	624.6	444.8	179.80	3.474	
12,400.0	7,500.0	12,284.3	7,500.0	91.6	93.5	90.00	5,057.9	1,111.3	619.8	436.7	183.10	3.385	
12,500.0	7,500.0	12,374.5	7,500.0	93.3	95.0	90.00	5,148.1	1,110.1	616.5	430.1	186.41	3.307	
12,600.0	7,500.0	12,464.8	7,500.0	95.0	96.5	90.00	5,238.4	1,110.4	614.9	425.1	189.71	3.241	
12,655.4	7,500.0	12,514.9	7,500.0	96.0	97.4	90.00	5,288.4	1,111.2	614.6	423.1	191.55	3.209	
12,700.0	7,500.0	12,555.1	7,500.0	96.8	98.1	90.00	5,328.7	1,112.1	614.8	421.8	193.02	3.185	
12,800.0	7,500.0	12,645.4	7,500.0	98.5	99.6	90.00	5,418.9	1,115.2	616.3	419.9	196.33	3.139	
12,900.0	7,500.0	12,735.7	7,500.0	100.2	101.2	90.00	5,509.0	1,119.8	619.3	419.7	199.64	3.102	
13,000.0	7,500.0	12,827.9	7,500.0	102.0	102.8	90.00	5,601.0	1,125.9	623.9	420.9	202.99	3.074	
13,100.0	7,500.0	12,927.8	7,500.0	103.7	104.5	90.00	5,700.7	1,132.9	629.0	422.5	206.47	3.047	
13,200.0	7,500.0	13,027.6	7,500.0	105.4	106.3	90.00	5,800.3	1,140.0	634.1	424.1	209.95	3.020	
13,300.0	7,500.0	13,127.5	7,500.0	107.2	108.0	90.00	5,899.9	1,147.0	639.2	425.8	213.44	2.995	
13,400.0	7,500.0	13,227.4	7,500.0	108.9	109.7	90.00	5,999.5	1,154.0	644.3	427.4	216.92	2.970	
13,500.0	7,500.0	13,327.2	7,500.0	110.7	111.5	90.00	6,099.1	1,161.1	649.4	429.0	220.40	2.946	
13,600.0	7,500.0	13,427.1	7,500.0	112.4	113.2	90.00	6,198.8	1,168.1	654.4	430.6	223.89	2.923	
13,700.0	7,500.0	13,527.0	7,500.0	114.1	114.9	90.00	6,298.4	1,175.2	659.5	432.2	227.38	2.901	
13,800.0	7,500.0	13,626.8	7,500.0	115.9	116.7	90.00	6,398.0	1,182.2	664.6	433.8	230.86	2.879	

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2F-7H-E168 - Hz - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
13,900.0	7,500.0	13,726.7	7,500.0	117.6	118.4	90.00	6,497.6	1,189.3	669.7	435.4	234.35	2.858		
14,000.0	7,500.0	13,826.6	7,500.0	119.4	120.1	90.00	6,597.2	1,196.3	674.8	436.9	237.84	2.837		
14,100.0	7,500.0	13,926.5	7,500.0	121.1	121.9	90.00	6,696.9	1,203.4	679.9	438.5	241.33	2.817		
14,200.0	7,500.0	14,026.3	7,500.0	122.8	123.6	90.00	6,796.5	1,210.4	685.0	440.1	244.82	2.798		
14,300.0	7,500.0	14,126.2	7,500.0	124.6	125.3	90.00	6,896.1	1,217.4	690.0	441.7	248.31	2.779		
14,400.0	7,500.0	14,226.1	7,500.0	126.3	127.1	90.00	6,995.7	1,224.5	695.1	443.3	251.80	2.761		
14,455.0	7,500.0	14,281.0	7,500.0	127.3	128.0	90.00	7,050.6	1,228.4	697.9	444.2	253.72	2.751 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2G-7H-E168 - Hz - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink 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	90.70	-0.4	29.9	29.9					
100.0	100.0	100.0	100.0	0.2	0.2	90.70	-0.4	29.9	29.9	29.6	0.30	98.619		
200.0	200.0	200.0	200.0	0.3	0.3	90.70	-0.4	29.9	29.9	29.3	0.65	45.882		
233.3	233.3	233.3	233.3	0.4	0.4	90.70	-0.4	29.9	29.9	29.2	0.77	38.939 CC		
300.0	300.0	299.7	299.7	0.5	0.5	90.77	-0.4	30.2	30.2	29.2	1.00	30.121 ES		
400.0	400.0	399.2	399.2	0.7	0.7	91.27	-0.7	31.9	31.9	30.5	1.35	23.589		
500.0	500.0	498.6	498.5	0.8	0.9	92.12	-1.3	35.3	35.3	33.6	1.71	20.692		
600.0	600.0	597.8	597.6	1.0	1.0	-3.34	-2.2	40.3	39.6	37.6	2.05	19.360		
700.0	700.0	697.0	696.6	1.2	1.2	-2.45	-3.4	47.1	43.9	41.5	2.39	18.334		
800.0	799.9	796.1	795.3	1.4	1.5	-1.59	-4.9	55.6	48.1	45.4	2.74	17.567		
900.0	899.7	895.2	893.8	1.6	1.7	-0.75	-6.7	65.7	52.4	49.3	3.09	16.971		
1,000.0	999.4	994.1	992.0	1.8	2.0	0.07	-8.7	77.5	56.6	53.2	3.43	16.495		
1,026.5	1,025.7	1,020.3	1,018.0	1.8	2.0	0.28	-9.3	80.9	57.8	54.2	3.52	16.385		
1,100.0	1,098.9	1,093.0	1,090.0	2.0	2.2	0.86	-11.1	90.9	61.3	57.6	3.78	16.223		
1,200.0	1,198.5	1,191.7	1,187.5	2.2	2.5	1.60	-13.8	106.0	67.7	63.6	4.13	16.400		
1,300.0	1,298.1	1,290.1	1,284.4	2.4	2.9	2.24	-16.7	122.7	75.8	71.3	4.48	16.936		
1,400.0	1,397.7	1,388.3	1,380.8	2.7	3.2	2.77	-19.9	140.9	85.6	80.8	4.82	17.752		
1,500.0	1,497.3	1,486.0	1,476.5	2.9	3.6	3.20	-23.4	160.7	97.1	92.0	5.17	18.790		
1,600.0	1,596.8	1,583.4	1,571.4	3.1	4.0	3.54	-27.2	182.1	110.3	104.8	5.52	20.007		
1,700.0	1,696.4	1,680.3	1,665.5	3.3	4.4	3.80	-31.2	204.8	125.2	119.4	5.86	21.370		
1,800.0	1,796.0	1,777.4	1,759.4	3.6	4.9	3.98	-35.4	229.2	141.7	135.5	6.21	22.838		
1,900.0	1,895.6	1,876.2	1,854.8	3.8	5.4	3.66	-38.6	254.5	158.5	152.0	6.55	24.193		
2,000.0	1,995.2	1,974.9	1,950.2	4.0	5.8	2.84	-40.0	280.0	175.3	168.4	6.90	25.399		
2,100.0	2,094.7	2,076.7	2,048.7	4.3	6.3	1.87	-40.5	305.5	191.2	183.9	7.25	26.363		
2,200.0	2,194.3	2,179.1	2,148.3	4.5	6.7	1.11	-40.9	329.5	205.4	197.8	7.61	27.009		
2,300.0	2,293.9	2,278.3	2,244.9	4.7	7.2	0.50	-41.3	351.8	218.7	210.8	7.95	27.503		
2,400.0	2,393.5	2,377.4	2,341.5	5.0	7.6	-0.05	-41.7	374.1	232.1	223.8	8.30	27.958		
2,500.0	2,493.0	2,476.5	2,438.0	5.2	8.0	-0.53	-42.1	396.4	245.5	236.8	8.65	28.378		
2,600.0	2,592.6	2,575.5	2,534.6	5.4	8.4	-0.97	-42.6	418.6	258.8	249.9	9.00	28.766		
2,700.0	2,692.2	2,674.6	2,631.1	5.7	8.9	-1.36	-43.0	440.9	272.2	262.9	9.35	29.127		
2,800.0	2,791.8	2,773.7	2,727.7	5.9	9.3	-1.72	-43.4	463.2	285.7	276.0	9.70	29.462		
2,900.0	2,891.4	2,872.8	2,824.2	6.1	9.7	-2.04	-43.8	485.5	299.1	289.0	10.04	29.775		
3,000.0	2,990.9	2,971.9	2,920.7	6.4	10.2	-2.34	-44.2	507.8	312.5	302.1	10.39	30.066		
3,100.0	3,090.5	3,071.0	3,017.3	6.6	10.6	-2.61	-44.6	530.0	325.9	315.2	10.74	30.340		
3,200.0	3,190.1	3,170.0	3,113.8	6.8	11.0	-2.86	-45.0	552.3	339.4	328.3	11.09	30.596		
3,300.0	3,289.7	3,269.1	3,210.4	7.1	11.5	-3.09	-45.4	574.6	352.8	341.4	11.44	30.837		
3,400.0	3,389.2	3,368.2	3,306.9	7.3	11.9	-3.30	-45.9	596.9	366.3	354.5	11.79	31.064		
3,500.0	3,488.8	3,467.3	3,403.5	7.6	12.3	-3.50	-46.3	619.1	379.7	367.6	12.14	31.278		
3,600.0	3,588.4	3,566.4	3,500.0	7.8	12.7	-3.69	-46.7	641.4	393.2	380.7	12.49	31.480		
3,700.0	3,688.0	3,665.4	3,596.6	8.0	13.2	-3.86	-47.1	663.7	406.7	393.8	12.84	31.671		
3,800.0	3,787.6	3,764.5	3,693.1	8.3	13.6	-4.02	-47.5	686.0	420.1	406.9	13.19	31.852		
3,900.0	3,887.1	3,863.6	3,789.6	8.5	14.0	-4.17	-47.9	708.3	433.6	420.1	13.54	32.024		
4,000.0	3,986.7	3,962.7	3,886.2	8.7	14.5	-4.32	-48.3	730.5	447.1	433.2	13.89	32.188		
4,100.0	4,086.3	4,061.8	3,982.7	9.0	14.9	-4.45	-48.7	752.8	460.6	446.3	14.24	32.343		
4,200.0	4,185.9	4,160.9	4,079.3	9.2	15.3	-4.58	-49.2	775.1	474.0	459.5	14.59	32.491		
4,300.0	4,285.4	4,259.9	4,175.8	9.4	15.8	-4.70	-49.6	797.4	487.5	472.6	14.94	32.632		
4,400.0	4,385.0	4,359.0	4,272.4	9.7	16.2	-4.81	-50.0	819.7	501.0	485.7	15.29	32.766		
4,500.0	4,484.6	4,458.1	4,368.9	9.9	16.6	-4.92	-50.4	841.9	514.5	498.9	15.64	32.895		
4,600.0	4,584.2	4,557.2	4,465.4	10.2	17.1	-5.02	-50.8	864.2	528.0	512.0	15.99	33.018		
4,700.0	4,683.8	4,656.3	4,562.0	10.4	17.5	-5.11	-51.2	886.5	541.5	525.1	16.34	33.136		
4,800.0	4,783.3	4,755.3	4,658.5	10.6	17.9	-5.21	-51.6	908.8	555.0	538.3	16.69	33.248		
4,900.0	4,882.9	4,854.4	4,755.1	10.9	18.4	-5.29	-52.0	931.0	568.5	551.4	17.04	33.356		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2G-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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
5,000.0	4,982.5	4,953.5	4,851.6	11.1	18.8	-5.38	-52.5	953.3	581.9	564.6	17.39	33.460	
5,100.0	5,082.1	5,052.6	4,948.2	11.3	19.2	-5.46	-52.9	975.6	595.4	577.7	17.74	33.560	
5,200.0	5,181.7	5,151.7	5,044.7	11.6	19.7	-5.53	-53.3	997.9	608.9	590.8	18.09	33.656	
5,300.0	5,281.2	5,250.8	5,141.3	11.8	20.1	-5.61	-53.7	1,020.2	622.4	604.0	18.44	33.748	
5,400.0	5,380.8	5,349.8	5,237.8	12.0	20.5	-5.68	-54.1	1,042.4	635.9	617.1	18.79	33.837	
5,500.0	5,480.4	5,448.9	5,334.3	12.3	21.0	-5.74	-54.5	1,064.7	649.4	630.3	19.14	33.922	
5,600.0	5,580.0	5,548.0	5,430.9	12.5	21.4	-5.81	-54.9	1,087.0	662.9	643.4	19.50	34.005	
5,700.0	5,679.5	5,647.1	5,527.4	12.8	21.8	-5.87	-55.3	1,109.3	676.4	656.6	19.85	34.084	
5,800.0	5,779.1	5,746.2	5,624.0	13.0	22.3	-5.93	-55.8	1,131.6	689.9	669.7	20.20	34.161	
5,900.0	5,878.7	5,845.3	5,720.5	13.2	22.7	-5.99	-56.2	1,153.8	703.4	682.9	20.55	34.235	
6,000.0	5,978.3	5,944.3	5,817.1	13.5	23.1	-6.04	-56.6	1,176.1	716.9	696.0	20.90	34.307	
6,100.0	6,077.9	6,043.4	5,913.6	13.7	23.6	-6.09	-57.0	1,198.4	730.4	709.2	21.25	34.376	
6,200.0	6,177.4	6,142.5	6,010.2	13.9	24.0	-6.14	-57.4	1,220.7	743.9	722.3	21.60	34.443	
6,300.0	6,277.0	6,241.6	6,106.7	14.2	24.4	-6.19	-57.8	1,242.9	757.4	735.5	21.95	34.508	
6,400.0	6,376.6	6,340.7	6,203.2	14.4	24.9	-6.24	-58.2	1,265.2	770.9	748.6	22.30	34.571	
6,500.0	6,476.2	6,439.7	6,299.8	14.7	25.3	-6.29	-58.6	1,287.5	784.4	761.8	22.65	34.632	
6,600.0	6,575.7	6,538.8	6,396.3	14.9	25.7	-6.33	-59.1	1,309.8	798.0	774.9	23.00	34.691	
6,700.0	6,675.3	6,637.9	6,492.9	15.1	26.2	-6.37	-59.5	1,332.1	811.5	788.1	23.35	34.748	
6,800.0	6,774.9	6,737.0	6,589.4	15.4	26.6	-6.41	-59.9	1,354.3	825.0	801.3	23.70	34.804	
6,900.0	6,874.5	6,836.1	6,686.0	15.6	27.0	-6.45	-60.3	1,376.6	838.5	814.4	24.05	34.858	
6,949.9	6,924.1	6,885.5	6,734.1	15.7	27.3	-6.47	-60.5	1,387.7	845.2	821.0	24.23	34.884	
7,000.0	6,974.0	6,935.1	6,782.5	15.8	27.5	39.19	-60.7	1,398.9	851.9	827.5	24.43	34.872	
7,050.0	7,023.4	6,984.3	6,830.3	15.9	27.7	59.39	-60.9	1,409.9	858.6	834.0	24.61	34.890	
7,100.0	7,072.1	7,032.7	6,877.5	16.0	27.9	68.37	-61.1	1,420.8	865.2	840.5	24.76	34.941	
7,150.0	7,119.7	7,080.0	6,923.7	16.2	28.1	73.39	-61.3	1,431.5	871.9	847.0	24.90	35.015	
7,200.0	7,165.9	7,125.9	6,968.4	16.3	28.3	76.72	-61.5	1,441.8	878.8	853.8	25.04	35.099	
7,250.0	7,210.2	7,170.0	7,011.3	16.4	28.5	79.21	-61.7	1,451.7	886.2	861.0	25.19	35.180	
7,300.0	7,252.5	7,212.0	7,052.2	16.5	28.7	81.19	-61.9	1,461.1	894.2	868.8	25.36	35.252	
7,350.0	7,292.2	7,251.5	7,090.7	16.7	28.9	82.81	-62.0	1,470.0	903.0	877.5	25.57	35.313	
7,400.0	7,329.2	7,288.2	7,126.5	16.8	29.0	84.10	-62.2	1,478.3	913.0	887.2	25.81	35.369	
7,450.0	7,363.2	7,322.0	7,159.4	17.0	29.2	85.07	-62.3	1,485.9	924.4	898.3	26.09	35.430	
7,500.0	7,393.8	7,360.2	7,196.7	17.3	29.3	86.07	-62.2	1,494.5	937.3	910.9	26.42	35.480	
7,550.0	7,421.0	7,416.1	7,251.0	17.5	29.6	87.72	-57.9	1,507.0	951.3	924.5	26.82	35.465	
7,600.0	7,444.3	7,481.9	7,314.0	17.8	29.9	89.58	-45.9	1,521.4	966.0	938.7	27.29	35.401	
7,650.0	7,463.8	7,562.5	7,388.8	18.2	30.2	91.86	-21.3	1,538.6	981.1	953.3	27.83	35.259	
7,700.0	7,479.2	7,666.5	7,478.9	18.5	30.6	94.73	25.9	1,559.1	995.9	967.5	28.43	35.037	
7,750.0	7,490.4	7,806.7	7,584.6	18.9	31.1	98.25	114.3	1,583.0	1,009.3	980.1	29.20	34.561	
7,800.0	7,497.4	7,997.5	7,688.8	19.3	32.0	101.80	271.4	1,606.3	1,019.1	988.6	30.43	33.493	
7,850.0	7,500.0	8,234.6	7,739.9	19.8	33.1	103.57	500.9	1,616.9	1,022.5	990.0	32.56	31.403	
7,855.2	7,500.0	8,248.0	7,740.0	19.9	33.2	103.58	514.3	1,616.8	1,022.4	989.7	32.70	31.268	
7,900.0	7,500.0	8,292.8	7,740.0	20.3	33.5	103.59	559.1	1,616.6	1,021.8	988.0	33.72	30.304	
8,000.0	7,500.0	8,392.8	7,740.0	21.3	34.1	103.61	659.1	1,616.1	1,020.2	984.1	36.12	28.249	
8,100.0	7,500.0	8,492.7	7,740.0	22.5	34.8	103.63	759.1	1,615.5	1,018.7	980.0	38.67	26.346	
8,200.0	7,500.0	8,592.7	7,740.0	23.7	35.6	103.65	859.1	1,615.0	1,017.2	975.8	41.34	24.606	
8,300.0	7,500.0	8,692.7	7,740.0	25.0	36.4	103.67	959.1	1,614.5	1,015.6	971.5	44.11	23.024	
8,400.0	7,500.0	8,792.7	7,740.0	26.3	37.3	103.69	1,059.1	1,614.0	1,014.1	967.2	46.97	21.591	
8,500.0	7,500.0	8,892.7	7,740.0	27.7	38.3	103.71	1,159.0	1,613.4	1,012.6	962.7	49.90	20.294	
8,600.0	7,500.0	8,992.7	7,740.0	29.1	39.3	103.73	1,259.0	1,612.9	1,011.1	958.2	52.88	19.121	
8,700.0	7,500.0	9,092.7	7,740.0	30.5	40.4	103.75	1,359.0	1,612.4	1,009.5	953.6	55.91	18.057	
8,800.0	7,500.0	9,192.7	7,740.0	32.0	41.5	103.78	1,459.0	1,611.9	1,008.0	949.0	58.98	17.091	
8,900.0	7,500.0	9,292.6	7,740.0	33.5	42.6	103.80	1,559.0	1,611.3	1,006.5	944.4	62.08	16.212	
9,000.0	7,500.0	9,392.6	7,740.0	35.1	43.8	103.82	1,659.0	1,610.8	1,005.0	939.7	65.22	15.409	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2G-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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)			
9,100.0	7,500.0	9,492.6	7,740.0	36.6	45.1	103.84	1,759.0	1,610.3	1,003.4	935.1	68.38	14.675	
9,200.0	7,500.0	9,592.6	7,740.0	38.2	46.3	103.86	1,859.0	1,609.8	1,001.9	930.4	71.56	14.001	
9,300.0	7,500.0	9,692.6	7,740.0	39.8	47.6	103.88	1,958.9	1,609.2	1,000.4	925.6	74.76	13.382	
9,400.0	7,500.0	9,792.6	7,740.0	41.4	49.0	103.90	2,058.9	1,608.7	998.9	920.9	77.97	12.810	
9,500.0	7,500.0	9,892.6	7,740.0	43.0	50.3	103.93	2,158.9	1,608.2	997.3	916.1	81.20	12.282	
9,600.0	7,500.0	9,992.6	7,740.0	44.6	51.7	103.95	2,258.9	1,607.7	995.8	911.4	84.45	11.792	
9,700.0	7,500.0	10,092.6	7,740.0	46.2	53.1	103.97	2,358.9	1,607.2	994.3	906.6	87.70	11.337	
9,800.0	7,500.0	10,192.5	7,740.0	47.9	54.5	103.99	2,458.9	1,606.6	992.8	901.8	90.97	10.914	
9,900.0	7,500.0	10,292.5	7,740.0	49.5	56.0	104.01	2,558.9	1,606.1	991.2	897.0	94.24	10.518	
10,000.0	7,500.0	10,392.5	7,740.0	51.2	57.4	104.04	2,658.8	1,605.6	989.7	892.2	97.52	10.149	
10,046.2	7,500.0	10,438.7	7,740.0	51.9	58.1	104.05	2,705.0	1,605.3	989.0	890.0	99.04	9.986	
10,100.0	7,500.0	10,492.5	7,740.0	52.8	58.9	104.05	2,758.8	1,605.1	988.4	888.0	100.47	9.838	
10,136.2	7,500.0	10,528.7	7,740.0	53.4	59.5	104.05	2,795.0	1,604.9	988.3	886.9	101.44	9.743	
10,200.0	7,500.0	10,592.5	7,740.0	54.5	60.4	104.05	2,858.8	1,604.5	988.7	885.5	103.14	9.586	
10,300.0	7,500.0	10,692.5	7,740.0	56.1	61.9	104.03	2,958.8	1,604.0	990.6	884.8	105.78	9.365	
10,400.0	7,500.0	10,792.4	7,740.0	57.8	63.4	103.98	3,058.7	1,603.5	994.2	885.8	108.41	9.171	
10,500.0	7,500.0	10,892.3	7,740.0	59.5	65.0	103.92	3,158.6	1,603.0	999.5	888.5	111.02	9.004	
10,600.0	7,500.0	10,992.0	7,740.0	61.1	66.5	103.84	3,258.3	1,602.4	1,006.5	892.9	113.60	8.860	
10,700.0	7,500.0	11,091.6	7,740.0	62.8	68.0	103.74	3,357.9	1,601.9	1,015.2	899.1	116.16	8.740	
10,800.0	7,500.0	11,191.0	7,740.0	64.4	69.6	103.62	3,457.3	1,601.4	1,025.6	906.9	118.70	8.641	
10,906.2	7,500.0	11,296.4	7,740.0	66.2	71.3	103.48	3,562.7	1,600.8	1,038.5	917.2	121.35	8.558	
11,000.0	7,500.0	11,389.3	7,740.0	67.7	72.7	103.32	3,655.7	1,600.4	1,050.8	926.2	124.54	8.437	
11,100.0	7,500.0	11,488.4	7,740.0	69.4	74.3	103.15	3,754.8	1,599.8	1,063.8	935.9	127.95	8.314	
11,200.0	7,500.0	11,587.5	7,740.0	71.0	75.9	102.99	3,853.9	1,599.3	1,076.9	945.5	131.36	8.198	
11,256.2	7,500.0	11,643.2	7,740.0	72.0	76.8	102.90	3,909.5	1,599.0	1,084.2	950.9	133.28	8.135	
11,300.0	7,500.0	11,686.7	7,740.0	72.7	77.5	102.82	3,953.0	1,598.8	1,089.8	954.6	135.18	8.061	
11,400.0	7,500.0	11,786.0	7,740.0	74.4	79.1	102.66	4,052.3	1,598.3	1,101.3	961.7	139.50	7.894	
11,500.0	7,500.0	11,885.5	7,740.0	76.1	80.7	102.53	4,151.8	1,597.8	1,111.1	967.3	143.79	7.727	
11,600.0	7,500.0	11,985.1	7,740.0	77.8	82.3	102.42	4,251.4	1,597.2	1,119.2	971.1	148.03	7.560	
11,700.0	7,500.0	12,084.9	7,740.0	79.5	83.9	102.33	4,351.2	1,596.7	1,125.6	973.3	152.23	7.394	
11,800.0	7,500.0	12,184.8	7,740.0	81.2	85.5	102.27	4,451.1	1,596.2	1,130.3	973.9	156.39	7.227	
11,900.0	7,500.0	12,284.7	7,740.0	82.9	87.2	102.23	4,551.0	1,595.7	1,133.3	972.8	160.49	7.061	
12,000.0	7,500.0	12,384.7	7,740.0	84.7	88.8	102.21	4,651.0	1,595.1	1,134.6	970.0	164.54	6.895	
12,100.0	7,500.0	12,484.7	7,740.0	86.4	90.5	102.22	4,751.0	1,594.6	1,134.2	965.6	168.54	6.729	
12,169.2	7,500.0	12,553.9	7,740.0	87.6	91.6	102.23	4,820.2	1,594.3	1,132.9	961.6	171.27	6.615	
12,200.0	7,500.0	12,584.7	7,740.0	88.1	92.1	102.24	4,851.0	1,594.1	1,132.1	959.8	172.31	6.570	
12,300.0	7,500.0	12,684.7	7,740.0	89.8	93.8	102.27	4,951.0	1,593.6	1,129.7	954.0	175.68	6.430	
12,400.0	7,500.0	12,784.6	7,740.0	91.6	95.4	102.30	5,050.9	1,593.1	1,127.3	948.2	179.06	6.296	
12,500.0	7,500.0	12,884.6	7,740.0	93.3	97.1	102.32	5,150.9	1,592.5	1,124.8	942.4	182.43	6.166	
12,600.0	7,500.0	12,984.6	7,740.0	95.0	98.7	102.35	5,250.9	1,592.0	1,122.4	936.6	185.81	6.040	
12,700.0	7,500.0	13,084.5	7,740.0	96.8	100.4	102.38	5,350.8	1,591.5	1,120.0	930.8	189.19	5.920	
12,800.0	7,500.0	13,184.5	7,740.0	98.5	102.1	102.41	5,450.8	1,591.0	1,117.5	924.9	192.57	5.803	
12,900.0	7,500.0	13,284.5	7,740.0	100.2	103.7	102.43	5,550.8	1,590.4	1,115.1	919.1	195.94	5.691	
13,000.0	7,500.0	13,384.4	7,740.0	102.0	105.4	102.46	5,650.7	1,589.9	1,112.6	913.3	199.32	5.582	
13,100.0	7,500.0	13,484.4	7,740.0	103.7	107.1	102.49	5,750.7	1,589.4	1,110.2	907.5	202.70	5.477	
13,200.0	7,500.0	13,584.4	7,740.0	105.4	108.8	102.52	5,850.7	1,588.9	1,107.8	901.7	206.08	5.375	
13,300.0	7,500.0	13,684.4	7,740.0	107.2	110.4	102.54	5,950.6	1,588.3	1,105.3	895.9	209.46	5.277	
13,400.0	7,500.0	13,784.3	7,740.0	108.9	112.1	102.57	6,050.6	1,587.8	1,102.9	890.1	212.83	5.182	
13,500.0	7,500.0	13,884.3	7,740.0	110.7	113.8	102.60	6,150.6	1,587.3	1,100.5	884.2	216.21	5.090	
13,600.0	7,500.0	13,984.3	7,740.0	112.4	115.5	102.63	6,250.5	1,586.8	1,098.0	878.4	219.59	5.000	
13,700.0	7,500.0	14,084.2	7,740.0	114.1	117.2	102.66	6,350.5	1,586.2	1,095.6	872.6	222.97	4.914	
13,800.0	7,500.0	14,184.2	7,740.0	115.9	118.9	102.69	6,450.5	1,585.7	1,093.2	866.8	226.34	4.830	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2G-7H-E168 - Hz - Plan #2													Offset Site Error:	0.0 ft	
Survey Program: 0-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)		(ft)					
13,900.0	7,500.0	14,284.2	7,740.0	117.6	120.6	102.72	6,550.4	1,585.2	1,090.7	861.0	229.72	4.748			
14,000.0	7,500.0	14,384.1	7,740.0	119.4	122.3	102.74	6,650.4	1,584.7	1,088.3	855.2	233.10	4.669			
14,100.0	7,500.0	14,484.1	7,740.0	121.1	124.0	102.77	6,750.4	1,584.2	1,085.8	849.4	236.47	4.592			
14,200.0	7,500.0	14,584.1	7,740.0	122.8	125.7	102.80	6,850.3	1,583.6	1,083.4	843.6	239.85	4.517			
14,300.0	7,500.0	14,684.0	7,740.0	124.6	127.4	102.83	6,950.3	1,583.1	1,081.0	837.8	243.22	4.444			
14,400.0	7,500.0	14,784.0	7,740.0	126.3	129.1	102.86	7,050.3	1,582.6	1,078.5	831.9	246.60	4.374			
14,455.0	7,500.0	14,839.0	7,740.0	127.3	130.0	102.88	7,105.3	1,582.3	1,077.2	828.8	248.46	4.336 SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2H-7H-E168 - Hz - Plan #3											Offset Site Error: 0.0 ft		
Survey Program: 0-Geolink 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	90.52	-0.4	40.0	40.0				
100.0	100.0	100.0	100.0	0.2	0.2	90.52	-0.4	40.0	40.0	39.7	0.30	131.795	CC, ES
200.0	200.0	200.0	200.0	0.3	0.3	90.52	-0.4	40.0	40.0	39.4	0.65	61.316	
300.0	300.0	299.3	299.3	0.5	0.5	90.55	-0.4	40.9	40.9	39.9	1.00	40.830	
400.0	400.0	398.5	398.5	0.7	0.7	90.62	-0.5	43.5	43.5	42.1	1.35	32.112	
500.0	500.0	497.7	497.5	0.8	0.9	90.73	-0.6	47.7	47.8	46.1	1.71	27.887	
600.0	600.0	596.6	596.3	1.0	1.1	-5.63	-0.8	53.7	53.0	51.0	2.04	25.942	
700.0	700.0	695.6	694.9	1.2	1.3	-5.74	-1.0	61.4	58.2	55.8	2.39	24.341	
800.0	799.9	794.4	793.3	1.4	1.5	-5.96	-1.3	70.8	63.3	60.6	2.74	23.145	
900.0	899.7	893.1	891.4	1.6	1.8	-6.25	-1.7	81.9	68.5	65.4	3.08	22.216	
1,000.0	999.4	991.7	989.2	1.8	2.0	-6.61	-2.1	94.6	73.6	70.2	3.43	21.472	
1,026.5	1,025.7	1,017.9	1,015.1	1.8	2.1	-6.72	-2.2	98.3	75.0	71.5	3.52	21.299	
1,100.0	1,098.9	1,090.3	1,086.7	2.0	2.3	-6.99	-2.5	109.0	79.2	75.5	3.78	20.977	
1,200.0	1,198.5	1,188.6	1,183.7	2.2	2.6	-7.27	-3.0	125.1	86.5	82.4	4.13	20.963	
1,300.0	1,298.1	1,286.6	1,280.1	2.4	3.0	-7.46	-3.6	142.7	95.5	91.0	4.47	21.334	
1,400.0	1,397.7	1,384.3	1,375.9	2.7	3.3	-7.56	-4.2	161.9	106.1	101.3	4.82	22.006	
1,500.0	1,497.3	1,481.7	1,471.0	2.9	3.7	-7.60	-4.8	182.7	118.5	113.3	5.17	22.916	
1,600.0	1,596.8	1,578.6	1,565.3	3.1	4.2	-7.60	-5.5	205.0	132.5	127.0	5.52	24.019	
1,700.0	1,696.4	1,675.0	1,658.7	3.3	4.6	-7.56	-6.3	228.7	148.2	142.3	5.86	25.280	
1,800.0	1,796.0	1,770.8	1,751.2	3.6	5.1	-7.50	-7.1	253.9	165.6	159.3	6.21	26.671	
1,900.0	1,895.6	1,866.1	1,842.7	3.8	5.6	-7.42	-7.9	280.4	184.5	178.0	6.55	28.171	
2,000.0	1,995.2	1,960.8	1,933.2	4.0	6.1	-7.34	-8.8	308.3	205.1	198.3	6.89	29.762	
2,100.0	2,094.7	2,056.0	2,023.7	4.3	6.6	-7.26	-9.7	337.8	227.3	220.0	7.24	31.409	
2,200.0	2,194.3	2,153.4	2,116.3	4.5	7.2	-7.18	-10.7	368.2	249.7	242.2	7.58	32.936	
2,300.0	2,293.9	2,250.9	2,208.8	4.7	7.8	-7.12	-11.6	398.7	272.2	264.3	7.93	34.330	
2,400.0	2,393.5	2,348.3	2,301.4	5.0	8.3	-7.06	-12.6	429.2	294.7	286.4	8.28	35.607	
2,500.0	2,493.0	2,445.7	2,393.9	5.2	8.9	-7.01	-13.5	459.6	317.1	308.5	8.62	36.782	
2,600.0	2,592.6	2,543.2	2,486.5	5.4	9.5	-6.97	-14.5	490.1	339.6	330.7	8.97	37.867	
2,700.0	2,692.2	2,640.6	2,579.0	5.7	10.0	-6.94	-15.4	520.6	362.1	352.8	9.32	38.871	
2,800.0	2,791.8	2,738.1	2,671.6	5.9	10.6	-6.91	-16.4	551.0	384.6	374.9	9.66	39.804	
2,900.0	2,891.4	2,835.5	2,764.1	6.1	11.2	-6.88	-17.4	581.5	407.0	397.0	10.01	40.672	
3,000.0	2,990.9	2,933.0	2,856.7	6.4	11.8	-6.85	-18.3	611.9	429.5	419.2	10.35	41.482	
3,100.0	3,090.5	3,030.4	2,949.3	6.6	12.3	-6.83	-19.3	642.4	452.0	441.3	10.70	42.240	
3,200.0	3,190.1	3,127.8	3,041.8	6.8	12.9	-6.81	-20.2	672.9	474.4	463.4	11.05	42.950	
3,300.0	3,289.7	3,225.3	3,134.4	7.1	13.5	-6.79	-21.2	703.3	496.9	485.5	11.39	43.618	
3,400.0	3,389.2	3,322.7	3,226.9	7.3	14.1	-6.78	-22.1	733.8	519.4	507.7	11.74	44.246	
3,500.0	3,488.8	3,420.2	3,319.5	7.6	14.6	-6.76	-23.1	764.3	541.9	529.8	12.08	44.838	
3,600.0	3,588.4	3,517.6	3,412.0	7.8	15.2	-6.75	-24.1	794.7	564.3	551.9	12.43	45.397	
3,700.0	3,688.0	3,615.1	3,504.6	8.0	15.8	-6.73	-25.0	825.2	586.8	574.0	12.78	45.926	
3,800.0	3,787.6	3,712.5	3,597.1	8.3	16.4	-6.72	-26.0	855.7	609.3	596.2	13.12	46.428	
3,900.0	3,887.1	3,809.9	3,689.7	8.5	17.0	-6.71	-26.9	886.1	631.7	618.3	13.47	46.903	
4,000.0	3,986.7	3,907.4	3,782.2	8.7	17.5	-6.70	-27.9	916.6	654.2	640.4	13.82	47.355	
4,100.0	4,086.3	4,004.8	3,874.8	9.0	18.1	-6.69	-28.8	947.1	676.7	662.5	14.16	47.785	
4,200.0	4,185.9	4,102.3	3,967.3	9.2	18.7	-6.68	-29.8	977.5	699.2	684.7	14.51	48.194	
4,300.0	4,285.4	4,199.7	4,059.9	9.4	19.3	-6.67	-30.8	1,008.0	721.6	706.8	14.85	48.585	
4,400.0	4,385.0	4,297.2	4,152.4	9.7	19.9	-6.66	-31.7	1,038.4	744.1	728.9	15.20	48.957	
4,500.0	4,484.6	4,394.6	4,245.0	9.9	20.4	-6.66	-32.7	1,068.9	766.6	751.0	15.55	49.313	
4,600.0	4,584.2	4,492.0	4,337.5	10.2	21.0	-6.65	-33.6	1,099.4	789.0	773.2	15.89	49.654	
4,700.0	4,683.8	4,589.5	4,430.1	10.4	21.6	-6.64	-34.6	1,129.8	811.5	795.3	16.24	49.980	
4,800.0	4,783.3	4,686.9	4,522.6	10.6	22.2	-6.64	-35.5	1,160.3	834.0	817.4	16.58	50.292	
4,900.0	4,882.9	4,784.4	4,615.2	10.9	22.8	-6.63	-36.5	1,190.8	856.5	839.5	16.93	50.592	
5,000.0	4,982.5	4,881.8	4,707.8	11.1	23.3	-6.62	-37.4	1,221.2	878.9	861.7	17.27	50.880	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2H-7H-E168 - Hz - Plan #3												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	
5,100.0	5,082.1	4,979.3	4,800.3	11.3	23.9	-6.62	-38.4	1,251.7	901.4	883.8	17.62	51.156	
5,200.0	5,181.7	5,076.7	4,892.9	11.6	24.5	-6.61	-39.4	1,282.2	923.9	905.9	17.97	51.422	
5,300.0	5,281.2	5,174.1	4,985.4	11.8	25.1	-6.61	-40.3	1,312.6	946.4	928.0	18.31	51.678	
5,400.0	5,380.8	5,271.6	5,078.0	12.0	25.7	-6.60	-41.3	1,343.1	968.8	950.2	18.66	51.924	
5,500.0	5,480.4	5,369.0	5,170.5	12.3	26.3	-6.60	-42.2	1,373.6	991.3	972.3	19.00	52.162	
5,600.0	5,580.0	5,466.5	5,263.1	12.5	26.8	-6.60	-43.2	1,404.0	1,013.8	994.4	19.35	52.391	
5,700.0	5,679.5	5,563.9	5,355.6	12.8	27.4	-6.59	-44.1	1,434.5	1,036.2	1,016.5	19.70	52.612	
5,800.0	5,779.1	5,661.3	5,448.2	13.0	28.0	-6.59	-45.1	1,464.9	1,058.7	1,038.7	20.04	52.825	
5,900.0	5,878.7	5,758.8	5,540.7	13.2	28.6	-6.58	-46.1	1,495.4	1,081.2	1,060.8	20.39	53.031	
6,000.0	5,978.3	5,856.2	5,633.3	13.5	29.2	-6.58	-47.0	1,525.9	1,103.7	1,082.9	20.73	53.230	
6,100.0	6,077.9	5,953.7	5,725.8	13.7	29.7	-6.58	-48.0	1,556.3	1,126.1	1,105.0	21.08	53.423	
6,200.0	6,177.4	6,051.1	5,818.4	13.9	30.3	-6.57	-48.9	1,586.8	1,148.6	1,127.2	21.43	53.610	
6,300.0	6,277.0	6,148.6	5,910.9	14.2	30.9	-6.57	-49.9	1,617.3	1,171.1	1,149.3	21.77	53.790	
6,400.0	6,376.6	6,246.0	6,003.5	14.4	31.5	-6.57	-50.8	1,647.7	1,193.5	1,171.4	22.12	53.965	
6,500.0	6,476.2	6,343.4	6,096.0	14.7	32.1	-6.56	-51.8	1,678.2	1,216.0	1,193.5	22.46	54.135	
6,600.0	6,575.7	6,440.9	6,188.6	14.9	32.6	-6.56	-52.7	1,708.7	1,238.5	1,215.7	22.81	54.299	
6,700.0	6,675.3	6,538.3	6,281.2	15.1	33.2	-6.56	-53.7	1,739.1	1,261.0	1,237.8	23.15	54.459	
6,800.0	6,774.9	6,635.8	6,373.7	15.4	33.8	-6.56	-54.7	1,769.6	1,283.4	1,259.9	23.50	54.613	
6,900.0	6,874.5	6,733.2	6,466.3	15.6	34.4	-6.55	-55.6	1,800.1	1,305.9	1,282.1	23.85	54.764	
6,949.9	6,924.1	6,781.8	6,512.4	15.7	34.7	-6.55	-56.1	1,815.2	1,317.1	1,293.1	24.02	54.837	
7,000.0	6,974.0	6,830.6	6,558.8	15.8	35.0	38.61	-56.6	1,830.5	1,328.3	1,304.1	24.28	54.714	
7,050.0	7,023.4	6,878.9	6,604.6	15.9	35.3	58.22	-57.0	1,845.6	1,339.4	1,314.9	24.53	54.594	
7,100.0	7,072.1	6,926.5	6,649.8	16.0	35.5	66.52	-57.5	1,860.5	1,350.3	1,325.6	24.77	54.515	
7,150.0	7,119.7	6,973.0	6,694.0	16.2	35.8	70.79	-58.0	1,875.0	1,361.2	1,336.2	24.98	54.493	
7,200.0	7,165.9	7,018.0	6,736.8	16.3	36.1	73.33	-58.4	1,889.1	1,371.9	1,346.7	25.16	54.525	
7,250.0	7,210.2	7,061.3	6,777.8	16.4	36.4	75.01	-58.8	1,902.6	1,382.6	1,357.3	25.33	54.594	
7,300.0	7,252.5	7,102.4	6,816.9	16.5	36.6	76.19	-59.2	1,915.5	1,393.5	1,368.0	25.49	54.677	
7,350.0	7,292.2	7,141.1	6,853.7	16.7	36.8	77.04	-59.6	1,927.6	1,404.5	1,378.9	25.65	54.748	
7,400.0	7,329.2	7,177.1	6,887.9	16.8	37.0	77.64	-60.0	1,938.8	1,416.0	1,390.1	25.85	54.786	
7,450.0	7,363.2	7,210.1	6,919.2	17.0	37.2	78.00	-60.3	1,949.1	1,427.8	1,401.8	26.07	54.776	
7,500.0	7,393.8	7,265.2	6,971.6	17.3	37.6	78.95	-59.5	1,966.3	1,440.1	1,413.8	26.32	54.711	
7,550.0	7,421.0	7,364.0	7,064.7	17.5	38.1	81.08	-45.2	1,995.4	1,452.0	1,425.4	26.67	54.442	
7,600.0	7,444.3	7,502.6	7,189.4	17.8	38.8	83.94	2.4	2,031.8	1,462.5	1,435.3	27.24	53.681	
7,650.0	7,463.8	7,704.4	7,344.7	18.2	39.6	87.26	123.5	2,071.1	1,470.1	1,441.6	28.44	51.700	
7,700.0	7,479.2	7,972.9	7,474.7	18.5	40.5	89.30	354.6	2,091.5	1,472.0	1,441.1	30.91	47.617	
7,750.0	7,490.4	8,166.2	7,500.0	18.9	41.0	89.08	545.2	2,081.4	1,467.2	1,433.9	33.35	43.999	
7,800.0	7,497.4	8,215.4	7,500.0	19.3	41.2	89.47	594.1	2,076.7	1,461.3	1,427.0	34.29	42.620	
7,850.0	7,500.0	8,265.0	7,500.0	19.8	41.4	89.95	643.5	2,072.0	1,455.8	1,420.5	35.24	41.313	
7,855.2	7,500.0	8,270.2	7,500.0	19.9	41.4	90.00	648.6	2,071.5	1,455.2	1,419.9	35.33	41.184	
7,900.0	7,500.0	8,314.7	7,500.0	20.3	41.6	90.00	693.0	2,067.2	1,450.5	1,414.0	36.42	39.823	
8,000.0	7,500.0	8,414.1	7,500.0	21.3	42.1	90.00	791.9	2,057.7	1,439.8	1,400.9	38.98	36.940	
8,100.0	7,500.0	8,513.6	7,500.0	22.5	42.6	90.00	890.9	2,048.1	1,429.2	1,387.5	41.67	34.298	
8,200.0	7,500.0	8,613.0	7,500.0	23.7	43.2	90.00	989.9	2,038.6	1,418.6	1,374.1	44.48	31.895	
8,300.0	7,500.0	8,712.4	7,500.0	25.0	43.8	90.00	1,088.9	2,029.1	1,408.0	1,360.6	47.37	29.720	
8,400.0	7,500.0	8,811.9	7,500.0	26.3	44.5	90.00	1,187.8	2,019.6	1,397.3	1,347.0	50.35	27.753	
8,500.0	7,500.0	8,911.3	7,500.0	27.7	45.3	90.00	1,286.8	2,010.0	1,386.7	1,333.3	53.39	25.974	
8,600.0	7,500.0	9,010.7	7,500.0	29.1	46.1	90.00	1,385.8	2,000.5	1,376.1	1,319.6	56.48	24.364	
8,700.0	7,500.0	9,110.2	7,500.0	30.5	47.0	90.00	1,484.8	1,991.0	1,365.4	1,305.8	59.62	22.904	
8,800.0	7,500.0	9,209.6	7,500.0	32.0	47.9	90.00	1,583.7	1,981.4	1,354.8	1,292.0	62.79	21.576	
8,900.0	7,500.0	9,309.0	7,500.0	33.5	48.9	90.00	1,682.7	1,971.9	1,344.2	1,278.2	66.00	20.367	
9,000.0	7,500.0	9,408.5	7,500.0	35.1	49.9	90.00	1,781.7	1,962.4	1,333.6	1,264.3	69.23	19.261	
9,100.0	7,500.0	9,507.9	7,500.0	36.6	50.9	90.00	1,880.7	1,952.8	1,322.9	1,250.4	72.49	18.249	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2H-7H-E168 - Hz - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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		
9,200.0	7,500.0	9,607.3	7,500.0	38.2	52.0	90.00	1,979.6	1,943.3	1,312.3	1,236.5	75.78	17.318		
9,300.0	7,500.0	9,706.8	7,500.0	39.8	53.1	90.00	2,078.6	1,933.8	1,301.7	1,222.6	79.08	16.461		
9,400.0	7,500.0	9,806.2	7,500.0	41.4	54.3	90.00	2,177.6	1,924.2	1,291.1	1,208.7	82.39	15.670		
9,500.0	7,500.0	9,905.6	7,500.0	43.0	55.5	90.00	2,276.6	1,914.7	1,280.4	1,194.7	85.72	14.937		
9,600.0	7,500.0	10,005.1	7,500.0	44.6	56.7	90.00	2,375.5	1,905.2	1,269.8	1,180.7	89.06	14.257		
9,700.0	7,500.0	10,104.5	7,500.0	46.2	57.9	90.00	2,474.5	1,895.7	1,259.2	1,166.8	92.42	13.625		
9,800.0	7,500.0	10,204.0	7,500.0	47.9	59.2	90.00	2,573.5	1,886.1	1,248.6	1,152.8	95.78	13.035		
9,900.0	7,500.0	10,303.4	7,500.0	49.5	60.5	90.00	2,672.5	1,876.6	1,237.9	1,138.8	99.16	12.484		
10,000.0	7,500.0	10,402.8	7,500.0	51.2	61.8	90.00	2,771.4	1,867.1	1,227.3	1,124.8	102.54	11.969		
10,046.2	7,500.0	10,448.7	7,500.0	51.9	62.5	90.00	2,817.2	1,862.7	1,222.4	1,118.3	104.10	11.742		
10,100.0	7,500.0	10,502.3	7,500.0	52.8	63.2	90.00	2,870.5	1,857.5	1,216.9	1,111.4	105.54	11.530		
10,200.0	7,500.0	10,601.9	7,500.0	54.5	64.5	90.00	2,969.6	1,848.0	1,208.1	1,099.9	108.21	11.165		
10,300.0	7,500.0	10,701.6	7,500.0	56.1	65.9	90.00	3,068.9	1,838.4	1,201.0	1,090.2	110.85	10.835		
10,400.0	7,500.0	10,784.5	7,500.0	57.8	67.1	90.00	3,151.4	1,831.1	1,196.4	1,083.2	113.18	10.571		
10,495.7	7,500.0	10,863.7	7,500.0	59.4	68.2	90.00	3,230.4	1,825.1	1,194.9	1,079.5	115.38	10.356		
10,500.0	7,500.0	10,867.2	7,500.0	59.5	68.3	90.00	3,233.9	1,824.9	1,194.9	1,079.4	115.48	10.347		
10,600.0	7,500.0	10,950.0	7,500.0	61.1	69.5	90.00	3,316.5	1,819.9	1,196.6	1,078.9	117.75	10.163		
10,700.0	7,500.0	11,032.5	7,500.0	62.8	70.7	90.00	3,399.0	1,816.1	1,201.6	1,081.6	119.98	10.015		
10,800.0	7,500.0	11,114.9	7,500.0	64.4	72.0	90.00	3,481.3	1,813.6	1,209.7	1,087.5	122.17	9.901		
10,906.2	7,500.0	11,200.0	7,500.0	66.2	73.3	90.00	3,566.4	1,812.1	1,221.7	1,097.3	124.42	9.819		
11,000.0	7,500.0	11,283.9	7,500.0	67.7	74.5	90.00	3,650.3	1,811.9	1,234.5	1,107.0	127.46	9.686		
11,100.0	7,500.0	11,382.9	7,500.0	69.4	76.1	90.00	3,749.3	1,811.9	1,248.4	1,117.6	130.86	9.540		
11,200.0	7,500.0	11,482.0	7,500.0	71.0	77.6	90.00	3,848.4	1,811.9	1,262.3	1,128.1	134.27	9.401		
11,256.2	7,500.0	11,537.6	7,500.0	72.0	78.5	90.00	3,904.0	1,811.9	1,270.2	1,134.0	136.19	9.327		
11,300.0	7,500.0	11,581.0	7,500.0	72.7	79.2	90.00	3,947.4	1,811.9	1,276.1	1,138.0	138.12	9.239		
11,400.0	7,500.0	11,680.2	7,500.0	74.4	80.7	90.00	4,046.6	1,811.9	1,288.4	1,145.9	142.52	9.040		
11,500.0	7,500.0	11,779.7	7,500.0	76.1	82.3	90.00	4,146.1	1,811.9	1,298.9	1,152.1	146.89	8.843		
11,600.0	7,500.0	11,879.3	7,500.0	77.8	83.9	90.00	4,245.7	1,811.9	1,307.8	1,156.5	151.23	8.647		
11,700.0	7,500.0	11,979.0	7,500.0	79.5	85.4	90.00	4,345.4	1,811.9	1,314.8	1,159.3	155.54	8.453		
11,800.0	7,500.0	12,078.9	7,500.0	81.2	87.0	90.00	4,445.3	1,811.9	1,320.2	1,160.4	159.82	8.261		
11,900.0	7,500.0	12,178.8	7,500.0	82.9	88.6	90.00	4,545.2	1,811.9	1,323.8	1,159.7	164.05	8.069		
12,000.0	7,500.0	12,278.8	7,500.0	84.7	90.3	90.00	4,645.2	1,811.9	1,325.6	1,157.4	168.25	7.879		
12,100.0	7,500.0	12,378.8	7,500.0	86.4	91.9	90.00	4,745.2	1,811.9	1,325.7	1,153.3	172.40	7.690		
12,169.2	7,500.0	12,448.0	7,500.0	87.6	93.0	90.00	4,814.4	1,811.9	1,324.8	1,149.6	175.24	7.560		
12,200.0	7,500.0	12,478.8	7,500.0	88.1	93.5	90.00	4,845.2	1,811.9	1,324.2	1,147.9	176.31	7.511		
12,300.0	7,500.0	12,578.8	7,500.0	89.8	95.1	90.00	4,945.2	1,811.9	1,322.2	1,142.4	179.78	7.355		
12,400.0	7,500.0	12,678.8	7,500.0	91.6	96.7	90.00	5,045.2	1,811.9	1,320.2	1,137.0	183.25	7.205		
12,500.0	7,500.0	12,778.7	7,500.0	93.3	98.4	90.00	5,145.1	1,811.9	1,318.3	1,131.6	186.72	7.060		
12,600.0	7,500.0	12,878.7	7,500.0	95.0	100.0	90.00	5,245.1	1,811.9	1,316.3	1,126.1	190.19	6.921		
12,700.0	7,500.0	12,978.7	7,500.0	96.8	101.7	90.00	5,345.1	1,811.9	1,314.3	1,120.7	193.66	6.787		
12,800.0	7,500.0	13,078.7	7,500.0	98.5	103.3	90.00	5,445.1	1,811.9	1,312.4	1,115.2	197.13	6.657		
12,900.0	7,500.0	13,178.7	7,500.0	100.2	105.0	90.00	5,545.1	1,811.9	1,310.4	1,109.8	200.61	6.532		
13,000.0	7,500.0	13,278.6	7,500.0	102.0	106.6	90.00	5,645.0	1,811.9	1,308.4	1,104.3	204.09	6.411		
13,100.0	7,500.0	13,378.6	7,500.0	103.7	108.3	90.00	5,745.0	1,811.9	1,306.4	1,098.9	207.56	6.294		
13,200.0	7,500.0	13,478.6	7,500.0	105.4	109.9	90.00	5,845.0	1,811.9	1,304.5	1,093.4	211.04	6.181		
13,300.0	7,500.0	13,578.6	7,500.0	107.2	111.6	90.00	5,945.0	1,811.9	1,302.5	1,088.0	214.52	6.072		
13,400.0	7,500.0	13,678.6	7,500.0	108.9	113.2	90.00	6,045.0	1,811.9	1,300.5	1,082.5	218.00	5.966		
13,500.0	7,500.0	13,773.5	7,500.0	110.7	114.8	90.00	6,139.9	1,811.9	1,298.6	1,077.2	221.39	5.866		
13,600.0	7,500.0	13,853.6	7,500.0	112.4	116.2	90.00	6,220.0	1,812.9	1,297.8	1,073.3	224.53	5.780		
13,603.3	7,500.0	13,856.2	7,500.0	112.5	116.2	90.00	6,222.6	1,812.9	1,297.8	1,073.2	224.63	5.777		
13,700.0	7,500.0	13,933.7	7,500.0	114.1	117.5	90.00	6,300.1	1,815.0	1,298.5	1,070.8	227.67	5.703		
13,800.0	7,500.0	14,013.7	7,500.0	115.9	118.9	90.00	6,380.0	1,818.4	1,300.8	1,069.9	230.81	5.636		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Becky 2H-7H-E168 - Hz - Plan #3													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-Geolink MWD													<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre			Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)		(ft)	(ft)			
13,900.0	7,500.0	14,100.0	7,500.0	117.6	120.4	90.00	6,466.1	1,823.4	1,304.5	1,070.5	234.06	5.574		
14,000.0	7,500.0	14,173.6	7,500.0	119.4	121.6	90.00	6,539.6	1,828.8	1,309.8	1,072.8	237.09	5.525		
14,100.0	7,500.0	14,253.3	7,500.0	121.1	123.0	90.00	6,619.0	1,835.8	1,316.7	1,076.4	240.22	5.481		
14,200.0	7,500.0	14,332.9	7,500.0	122.8	124.4	90.00	6,698.1	1,844.0	1,325.0	1,081.7	243.35	5.445		
14,300.0	7,500.0	14,412.2	7,500.0	124.6	125.8	90.00	6,776.9	1,853.4	1,334.9	1,088.4	246.48	5.416		
14,400.0	7,500.0	14,500.0	7,500.0	126.3	127.3	90.00	6,863.9	1,865.2	1,346.3	1,096.5	249.76	5.390		
14,455.0	7,500.0	14,534.7	7,500.0	127.3	127.9	90.00	6,898.2	1,870.2	1,353.2	1,101.8	251.32	5.384 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2A-7H-E168 - Hz - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	-89.96	0.4	-548.0	548.0					
100.0	100.0	100.0	100.0	0.2	0.2	-89.96	0.4	-548.0	548.0	547.7	0.30	1,804.500		
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.4	-548.0	548.0	547.4	0.65	839.527 CC		
200.7	200.7	200.7	200.7	0.3	0.3	-89.96	0.4	-548.0	548.0	547.3	0.66	836.328		
300.0	300.0	300.0	300.0	0.5	0.5	-89.87	1.2	-548.0	548.0	547.0	1.00	547.018		
400.0	400.0	399.9	399.9	0.7	0.7	-89.60	3.9	-548.0	548.0	546.7	1.35	405.699		
500.0	500.0	499.7	499.6	0.8	0.9	-89.14	8.2	-548.0	548.1	546.4	1.70	322.462 ES		
600.0	600.0	599.3	599.0	1.0	1.1	175.10	14.3	-548.0	549.1	547.0	2.09	262.495		
700.0	700.0	698.9	698.3	1.2	1.3	175.90	21.7	-548.0	551.9	549.4	2.47	223.306		
800.0	799.9	798.5	797.6	1.4	1.5	176.70	29.2	-548.0	556.6	553.8	2.85	195.034		
900.0	899.7	897.9	896.8	1.6	1.7	177.49	36.7	-548.0	563.2	559.9	3.24	173.971		
1,000.0	999.4	997.3	995.8	1.8	1.9	178.28	44.2	-548.0	571.6	568.0	3.62	157.884		
1,026.5	1,025.7	1,023.6	1,022.0	1.8	2.0	178.48	46.2	-548.0	574.1	570.4	3.72	154.264		
1,100.0	1,098.9	1,096.5	1,094.8	2.0	2.1	179.04	51.7	-548.0	581.4	577.4	4.01	145.132		
1,200.0	1,198.5	1,195.7	1,193.7	2.2	2.3	179.78	59.2	-548.0	591.3	586.9	4.39	134.613		
1,300.0	1,298.1	1,294.9	1,292.6	2.4	2.5	-179.50	66.7	-548.0	601.3	596.6	4.78	125.811		
1,400.0	1,397.7	1,394.2	1,391.6	2.7	2.8	-178.81	74.1	-548.0	611.5	606.3	5.17	118.341		
1,500.0	1,497.3	1,493.4	1,490.5	2.9	3.0	-178.14	81.6	-548.0	621.7	616.1	5.55	111.926		
1,600.0	1,596.8	1,592.6	1,589.5	3.1	3.2	-177.49	89.1	-548.0	632.0	626.0	5.94	106.359		
1,700.0	1,696.4	1,691.8	1,688.4	3.3	3.4	-176.86	96.6	-548.0	642.3	636.0	6.33	101.486		
1,800.0	1,796.0	1,791.0	1,787.3	3.6	3.6	-176.26	104.1	-548.0	652.8	646.1	6.72	97.185		
1,900.0	1,895.6	1,890.3	1,886.3	3.8	3.8	-175.67	111.6	-548.0	663.3	656.2	7.10	93.362		
2,000.0	1,995.2	1,989.5	1,985.2	4.0	4.1	-175.10	119.0	-548.0	673.9	666.4	7.49	89.944		
2,100.0	2,094.7	2,088.7	2,084.1	4.3	4.3	-174.54	126.5	-548.0	684.5	676.6	7.88	86.869		
2,200.0	2,194.3	2,187.9	2,183.1	4.5	4.5	-174.01	134.0	-548.0	695.2	686.9	8.27	84.089		
2,300.0	2,293.9	2,287.1	2,282.0	4.7	4.7	-173.49	141.5	-548.0	706.0	697.3	8.66	81.565		
2,400.0	2,393.5	2,386.3	2,380.9	5.0	4.9	-172.99	149.0	-548.0	716.8	707.8	9.04	79.262		
2,500.0	2,493.0	2,485.6	2,479.9	5.2	5.1	-172.50	156.5	-548.0	727.7	718.2	9.43	77.154		
2,600.0	2,592.6	2,584.8	2,578.8	5.4	5.4	-172.02	164.0	-548.0	738.6	728.8	9.82	75.217		
2,700.0	2,692.2	2,684.0	2,677.7	5.7	5.6	-171.56	171.4	-548.0	749.6	739.4	10.21	73.432		
2,800.0	2,791.8	2,783.2	2,776.7	5.9	5.8	-171.11	178.9	-548.0	760.6	750.0	10.60	71.781		
2,900.0	2,891.4	2,882.4	2,875.6	6.1	6.0	-170.68	186.4	-548.0	771.7	760.7	10.98	70.250		
3,000.0	2,990.9	2,981.6	2,974.5	6.4	6.2	-170.26	193.9	-548.0	782.8	771.4	11.37	68.827		
3,100.0	3,090.5	3,080.9	3,073.5	6.6	6.4	-169.85	201.4	-548.0	793.9	782.2	11.76	67.500		
3,200.0	3,190.1	3,180.1	3,172.4	6.8	6.7	-169.45	208.9	-548.0	805.1	793.0	12.15	66.261		
3,300.0	3,289.7	3,279.3	3,271.3	7.1	6.9	-169.06	216.3	-548.0	816.3	803.8	12.54	65.102		
3,400.0	3,389.2	3,378.5	3,370.3	7.3	7.1	-168.68	223.8	-548.0	827.6	814.7	12.93	64.014		
3,500.0	3,488.8	3,477.7	3,469.2	7.6	7.3	-168.31	231.3	-548.0	838.9	825.6	13.32	62.992		
3,600.0	3,588.4	3,576.9	3,568.1	7.8	7.5	-167.96	238.8	-548.0	850.2	836.5	13.71	62.030		
3,700.0	3,688.0	3,676.2	3,667.1	8.0	7.7	-167.61	246.3	-548.0	861.6	847.5	14.10	61.122		
3,800.0	3,787.6	3,775.4	3,766.0	8.3	8.0	-167.27	253.8	-548.0	873.0	858.5	14.49	60.265		
3,900.0	3,887.1	3,874.6	3,864.9	8.5	8.2	-166.94	261.3	-548.0	884.4	869.5	14.88	59.455		
4,000.0	3,986.7	3,973.8	3,963.9	8.7	8.4	-166.61	268.7	-548.0	895.9	880.6	15.26	58.687		
4,100.0	4,086.3	4,073.0	4,062.8	9.0	8.6	-166.30	276.2	-548.0	907.3	891.7	15.65	57.959		
4,200.0	4,185.9	4,172.2	4,161.8	9.2	8.8	-165.99	283.7	-548.0	918.8	902.8	16.04	57.267		
4,300.0	4,285.4	4,271.5	4,260.7	9.4	9.0	-165.69	291.2	-548.0	930.4	913.9	16.43	56.610		
4,400.0	4,385.0	4,370.7	4,359.6	9.7	9.3	-165.40	298.7	-548.0	941.9	925.1	16.82	55.984		
4,500.0	4,484.6	4,469.9	4,458.6	9.9	9.5	-165.12	306.2	-548.0	953.5	936.3	17.22	55.387		
4,600.0	4,584.2	4,569.1	4,557.5	10.2	9.7	-164.84	313.6	-548.0	965.1	947.5	17.61	54.818		
4,700.0	4,683.8	4,668.3	4,656.4	10.4	9.9	-164.57	321.1	-548.0	976.7	958.7	18.00	54.274		
4,800.0	4,783.3	4,767.6	4,755.4	10.6	10.1	-164.31	328.6	-548.0	988.4	970.0	18.39	53.754		
4,900.0	4,882.9	4,866.8	4,854.3	10.9	10.3	-164.05	336.1	-548.0	1,000.0	981.2	18.78	53.257		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2A-7H-E168 - Hz - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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
5,000.0	4,982.5	4,966.0	4,953.2	11.1	10.6	-163.79	343.6	-548.0	1,011.7	992.5	19.17	52.781	
5,100.0	5,082.1	5,065.2	5,052.2	11.3	10.8	-163.55	351.1	-548.0	1,023.4	1,003.9	19.56	52.324	
5,200.0	5,181.7	5,164.4	5,151.1	11.6	11.0	-163.31	358.5	-548.0	1,035.1	1,015.2	19.95	51.886	
5,300.0	5,281.2	5,263.6	5,250.0	11.8	11.2	-163.07	366.0	-548.0	1,046.9	1,026.5	20.34	51.465	
5,400.0	5,380.8	5,362.9	5,349.0	12.0	11.4	-162.84	373.5	-548.0	1,058.6	1,037.9	20.73	51.061	
5,500.0	5,480.4	5,462.1	5,447.9	12.3	11.6	-162.62	381.0	-548.0	1,070.4	1,049.3	21.12	50.673	
5,600.0	5,580.0	5,561.3	5,546.8	12.5	11.9	-162.39	388.5	-548.0	1,082.2	1,060.7	21.52	50.299	
5,700.0	5,679.5	5,660.5	5,645.8	12.8	12.1	-162.18	396.0	-548.0	1,094.0	1,072.1	21.91	49.939	
5,800.0	5,779.1	5,759.7	5,744.7	13.0	12.3	-161.97	403.5	-548.0	1,105.8	1,083.5	22.30	49.592	
5,900.0	5,878.7	5,858.9	5,843.6	13.2	12.5	-161.76	410.9	-548.0	1,117.6	1,095.0	22.69	49.257	
6,000.0	5,978.3	5,958.2	5,942.6	13.5	12.7	-161.56	418.4	-548.0	1,129.5	1,106.4	23.08	48.934	
6,100.0	6,077.9	6,057.4	6,041.5	13.7	12.9	-161.36	425.9	-548.0	1,141.4	1,117.9	23.47	48.623	
6,200.0	6,177.4	6,156.6	6,140.4	13.9	13.2	-161.17	433.4	-548.0	1,153.2	1,129.4	23.87	48.322	
6,300.0	6,277.0	6,255.8	6,239.4	14.2	13.4	-160.98	440.9	-548.0	1,165.1	1,140.9	24.26	48.031	
6,400.0	6,376.6	6,355.0	6,338.3	14.4	13.6	-160.79	448.4	-548.0	1,177.0	1,152.4	24.65	47.750	
6,500.0	6,476.2	6,454.2	6,437.2	14.7	13.8	-160.61	455.8	-548.0	1,188.9	1,163.9	25.04	47.478	
6,600.0	6,575.7	6,553.5	6,536.2	14.9	14.0	-160.43	463.3	-548.0	1,200.8	1,175.4	25.43	47.214	
6,700.0	6,675.3	6,652.7	6,635.1	15.1	14.2	-160.25	470.8	-548.0	1,212.8	1,187.0	25.83	46.959	
6,800.0	6,774.9	6,751.9	6,734.1	15.4	14.5	-160.08	478.3	-548.0	1,224.7	1,198.5	26.22	46.712	
6,900.0	6,874.5	6,851.1	6,833.0	15.6	14.7	-159.91	485.8	-548.0	1,236.7	1,210.1	26.61	46.473	
6,949.9	6,924.1	6,900.6	6,882.3	15.7	14.8	-159.83	489.5	-548.0	1,242.6	1,215.8	26.81	46.356	
7,000.0	6,974.0	6,950.5	6,932.0	15.8	14.9	-113.17	493.3	-548.0	1,247.7	1,220.6	27.06	46.106	
7,050.0	7,023.4	7,000.2	6,981.6	15.9	15.0	-92.62	497.0	-548.0	1,250.8	1,223.5	27.30	45.815	
7,100.0	7,072.1	7,049.5	7,030.8	16.0	15.1	-83.91	500.8	-548.0	1,252.0	1,224.5	27.53	45.484	
7,150.0	7,119.7	7,098.1	7,079.2	16.2	15.2	-79.73	504.4	-548.0	1,251.3	1,223.6	27.74	45.110	
7,200.0	7,165.9	7,173.1	7,154.1	16.3	15.4	-78.20	509.3	-548.0	1,248.9	1,220.9	27.99	44.625	
7,250.0	7,210.2	7,488.0	7,455.2	16.4	15.0	-86.65	431.7	-548.0	1,238.9	1,211.2	27.75	44.643	
7,300.0	7,252.5	7,589.2	7,537.8	16.5	14.6	-91.12	373.3	-548.0	1,225.4	1,197.9	27.51	44.549	
7,350.0	7,292.2	7,623.7	7,563.4	16.7	14.5	-93.11	350.2	-548.0	1,212.4	1,184.9	27.50	44.081	
7,400.0	7,329.2	7,632.7	7,569.8	16.8	14.5	-93.98	344.0	-548.0	1,200.8	1,173.2	27.63	43.466	
7,450.0	7,363.2	7,629.6	7,567.6	17.0	14.5	-94.26	346.1	-548.0	1,191.0	1,163.1	27.84	42.787	
7,500.0	7,393.8	7,619.9	7,560.6	17.3	14.5	-94.15	352.8	-548.0	1,182.9	1,154.8	28.12	42.071	
7,550.0	7,421.0	7,606.2	7,550.6	17.5	14.6	-93.77	362.1	-548.0	1,176.7	1,148.2	28.47	41.334	
7,600.0	7,444.3	7,590.0	7,538.3	17.8	14.6	-93.16	372.8	-548.0	1,172.3	1,143.4	28.88	40.590	
7,650.0	7,463.8	7,571.9	7,524.4	18.2	14.7	-92.38	384.3	-548.0	1,169.6	1,140.2	29.35	39.852	
7,700.0	7,479.2	7,552.6	7,509.1	18.5	14.8	-91.44	396.1	-548.0	1,168.5	1,138.7	29.86	39.135	
7,709.1	7,481.5	7,549.0	7,506.2	18.6	14.8	-91.25	398.2	-548.0	1,168.5	1,138.5	29.96	39.005	
7,750.0	7,490.4	7,532.4	7,492.7	18.9	14.8	-90.37	407.9	-548.0	1,169.0	1,138.6	30.39	38.460	
7,800.0	7,497.4	7,511.5	7,475.3	19.3	14.9	-89.19	419.4	-548.0	1,170.9	1,139.9	30.94	37.838	
7,850.0	7,500.0	7,490.0	7,457.0	19.8	15.0	-87.93	430.7	-548.0	1,174.0	1,142.5	31.49	37.287	
7,855.2	7,500.0	7,487.8	7,455.0	19.9	15.0	-87.80	431.8	-548.0	1,174.4	1,142.8	31.54	37.234	
7,900.0	7,500.0	7,469.4	7,439.0	20.3	15.0	-87.01	440.8	-548.0	1,178.5	1,146.4	32.09	36.721	
8,000.0	7,500.0	7,435.0	7,408.2	21.3	15.1	-85.52	456.2	-548.0	1,192.6	1,159.2	33.36	35.750	
8,100.0	7,500.0	7,400.0	7,376.1	22.5	15.2	-83.96	469.9	-548.0	1,213.7	1,179.1	34.67	35.007	
8,200.0	7,500.0	7,385.5	7,362.5	23.7	15.2	-83.30	475.1	-548.0	1,241.8	1,205.8	36.03	34.470	
8,300.0	7,500.0	7,367.2	7,345.2	25.0	15.3	-82.47	481.0	-548.0	1,276.6	1,239.2	37.42	34.115	
8,400.0	7,500.0	7,350.0	7,328.8	26.3	15.3	-81.68	486.1	-548.0	1,317.7	1,278.8	38.85	33.919	
8,500.0	7,500.0	7,350.0	7,328.8	27.7	15.3	-81.68	486.1	-548.0	1,364.6	1,324.3	40.34	33.829 SF	
8,600.0	7,500.0	7,327.9	7,307.4	29.1	15.3	-80.66	492.0	-548.0	1,416.7	1,374.9	41.79	33.903	
8,700.0	7,500.0	7,318.2	7,298.1	30.5	15.3	-80.21	494.2	-548.0	1,473.7	1,430.4	43.29	34.040	
8,800.0	7,500.0	7,300.0	7,280.2	32.0	15.4	-79.37	498.1	-548.0	1,535.0	1,490.2	44.77	34.284	
8,900.0	7,500.0	7,300.0	7,280.2	33.5	15.4	-79.37	498.1	-548.0	1,599.9	1,553.6	46.35	34.520	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2A-7H-E168 - Hz - Plan #2											Offset Site Error: 0.0 ft		
Survey Program: 0-Geolink 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
9,000.0	7,500.0	7,300.0	7,280.2	35.1	15.4	-79.37	498.1	-548.0	1,668.3	1,620.4	47.94	34.802	
9,100.0	7,500.0	7,300.0	7,280.2	36.6	15.4	-79.37	498.1	-548.0	1,739.8	1,690.3	49.54	35.119	
9,200.0	7,500.0	7,300.0	7,280.2	38.2	15.4	-79.37	498.1	-548.0	1,814.0	1,762.8	51.15	35.461	
9,300.0	7,500.0	7,279.8	7,260.3	39.8	15.4	-78.43	501.8	-548.0	1,890.2	1,837.5	52.64	35.908	
9,400.0	7,500.0	7,275.4	7,256.0	41.4	15.4	-78.23	502.5	-548.0	1,968.6	1,914.4	54.23	36.299	
9,500.0	7,500.0	7,271.4	7,252.1	43.0	15.4	-78.05	503.1	-548.0	2,049.0	1,993.1	55.84	36.696	
9,600.0	7,500.0	7,250.0	7,230.9	44.6	15.4	-77.05	505.9	-548.0	2,131.2	2,073.9	57.29	37.200	
9,700.0	7,500.0	7,250.0	7,230.9	46.2	15.4	-77.05	505.9	-548.0	2,214.5	2,155.6	58.93	37.579	
9,800.0	7,500.0	7,250.0	7,230.9	47.9	15.4	-77.05	505.9	-548.0	2,299.2	2,238.6	60.57	37.956	
9,900.0	7,500.0	7,250.0	7,230.9	49.5	15.4	-77.05	505.9	-548.0	2,385.0	2,322.8	62.22	38.330	
10,000.0	7,500.0	7,250.0	7,230.9	51.2	15.4	-77.05	505.9	-548.0	2,471.9	2,408.0	63.88	38.698	
10,046.2	7,500.0	7,250.0	7,230.9	51.9	15.4	-77.05	505.9	-548.0	2,512.4	2,447.7	64.64	38.867	
10,100.0	7,500.0	7,250.0	7,230.9	52.8	15.4	-77.27	505.9	-548.0	2,559.7	2,494.2	65.49	39.087	
10,200.0	7,500.0	7,250.0	7,230.9	54.5	15.4	-77.67	505.9	-548.0	2,647.6	2,580.5	67.05	39.488	
10,300.0	7,500.0	7,250.0	7,230.9	56.1	15.4	-78.06	505.9	-548.0	2,735.5	2,666.9	68.60	39.879	
10,400.0	7,500.0	7,250.0	7,230.9	57.8	15.4	-78.44	505.9	-548.0	2,823.5	2,753.4	70.13	40.261	
10,500.0	7,500.0	7,250.0	7,230.9	59.5	15.4	-78.80	505.9	-548.0	2,911.4	2,839.8	71.65	40.636	
10,600.0	7,500.0	7,250.0	7,230.9	61.1	15.4	-79.16	505.9	-548.0	2,999.4	2,926.2	73.15	41.003	
10,700.0	7,500.0	7,250.0	7,230.9	62.8	15.4	-79.50	505.9	-548.0	3,087.2	3,012.6	74.64	41.364	
10,800.0	7,500.0	7,250.0	7,230.9	64.4	15.4	-79.83	505.9	-548.0	3,175.0	3,098.9	76.10	41.719	
10,906.2	7,500.0	7,250.0	7,230.9	66.2	15.4	-80.16	505.9	-548.0	3,268.1	3,190.5	77.64	42.091	
11,000.0	7,500.0	7,250.0	7,230.9	67.7	15.4	-80.16	505.9	-548.0	3,350.6	3,271.4	79.24	42.284	
11,100.0	7,500.0	7,250.0	7,230.9	69.4	15.4	-80.16	505.9	-548.0	3,439.2	3,358.2	80.94	42.489	
11,200.0	7,500.0	7,250.0	7,230.9	71.0	15.4	-80.16	505.9	-548.0	3,528.4	3,445.7	82.65	42.691	
11,256.2	7,500.0	7,250.0	7,230.9	72.0	15.4	-80.16	505.9	-548.0	3,578.7	3,495.1	83.61	42.804	
11,300.0	7,500.0	7,250.0	7,230.9	72.7	15.4	-80.01	505.9	-548.0	3,618.2	3,533.7	84.46	42.839	
11,400.0	7,500.0	7,250.0	7,230.9	74.4	15.4	-79.62	505.9	-548.0	3,709.1	3,622.8	86.38	42.940	
11,500.0	7,500.0	7,250.0	7,230.9	76.1	15.4	-79.18	505.9	-548.0	3,801.2	3,713.0	88.26	43.070	
11,600.0	7,500.0	7,250.0	7,230.9	77.8	15.4	-78.69	505.9	-548.0	3,894.3	3,804.2	90.09	43.229	
11,700.0	7,500.0	7,250.0	7,230.9	79.5	15.4	-78.14	505.9	-548.0	3,988.4	3,896.5	91.86	43.417	
11,800.0	7,500.0	7,250.0	7,230.9	81.2	15.4	-77.51	505.9	-548.0	4,083.2	3,989.6	93.57	43.637	
11,900.0	7,500.0	7,227.4	7,208.3	82.9	15.4	-75.72	507.9	-548.0	4,178.3	4,083.5	94.80	44.076	
12,000.0	7,500.0	7,226.5	7,207.5	84.7	15.4	-74.77	508.0	-548.0	4,274.6	4,178.3	96.26	44.405	
12,100.0	7,500.0	7,225.7	7,206.6	86.4	15.4	-73.68	508.1	-548.0	4,371.4	4,273.8	97.59	44.792	
12,169.2	7,500.0	7,225.1	7,206.1	87.6	15.4	-72.81	508.1	-548.0	4,438.7	4,340.3	98.42	45.101	
12,200.0	7,500.0	7,224.8	7,205.8	88.1	15.4	-72.79	508.1	-548.0	4,468.7	4,369.8	98.92	45.175	
12,300.0	7,500.0	7,224.1	7,205.0	89.8	15.4	-72.75	508.2	-548.0	4,566.3	4,465.7	100.56	45.409	
12,400.0	7,500.0	7,223.3	7,204.3	91.6	15.4	-72.71	508.2	-548.0	4,663.9	4,561.7	102.20	45.636	
12,500.0	7,500.0	7,222.6	7,203.6	93.3	15.4	-72.67	508.3	-548.0	4,761.7	4,657.8	103.84	45.857	
12,600.0	7,500.0	7,200.0	7,181.0	95.0	15.4	-71.44	509.2	-548.0	4,860.0	4,755.2	104.81	46.370	
12,700.0	7,500.0	7,200.0	7,181.0	96.8	15.4	-71.44	509.2	-548.0	4,957.9	4,851.4	106.46	46.571	
12,800.0	7,500.0	7,200.0	7,181.0	98.5	15.4	-71.44	509.2	-548.0	5,055.8	4,947.7	108.11	46.767	
12,900.0	7,500.0	7,200.0	7,181.0	100.2	15.4	-71.44	509.2	-548.0	5,153.9	5,044.1	109.76	46.957	
13,000.0	7,500.0	7,200.0	7,181.0	102.0	15.4	-71.44	509.2	-548.0	5,252.0	5,140.6	111.41	47.142	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2B-7H-E168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	-89.77	0.4	-89.8	89.8					
100.0	100.0	100.0	100.0	0.2	0.2	-89.77	0.4	-89.8	89.8	89.5	0.30	295.837		
200.0	200.0	200.0	200.0	0.3	0.3	-89.77	0.4	-89.8	89.8	89.2	0.65	137.636		
300.0	300.0	300.0	300.0	0.5	0.5	-89.77	0.4	-89.8	89.8	88.8	1.00	89.679 CC, ES		
400.0	400.0	399.0	399.0	0.7	0.7	-89.35	1.0	-90.4	90.4	89.1	1.35	66.998		
500.0	500.0	497.9	497.9	0.8	0.9	-88.14	3.0	-92.0	92.1	90.4	1.70	54.249		
600.0	600.0	596.7	596.6	1.0	1.0	177.40	6.2	-94.8	95.9	93.9	2.05	46.761		
700.0	700.0	695.1	694.8	1.2	1.2	179.86	10.8	-98.6	102.8	100.4	2.41	42.724		
800.0	799.9	794.5	794.0	1.4	1.4	-177.68	16.1	-103.1	112.3	109.5	2.76	40.653		
900.0	899.7	893.8	893.0	1.6	1.6	-175.65	21.4	-107.5	123.7	120.6	3.12	39.683		
1,000.0	999.4	992.8	991.8	1.8	1.8	-174.04	26.7	-111.9	137.0	133.5	3.47	39.460		
1,026.5	1,025.7	1,019.0	1,017.9	1.8	1.9	-173.68	28.1	-113.1	140.8	137.2	3.56	39.496		
1,100.0	1,098.9	1,091.7	1,090.4	2.0	2.0	-172.78	32.0	-116.4	151.5	147.7	3.83	39.608		
1,200.0	1,198.5	1,190.6	1,189.1	2.2	2.2	-171.75	37.3	-120.8	166.3	162.1	4.18	39.747		
1,300.0	1,298.1	1,290.9	1,289.2	2.4	2.5	-170.68	43.1	-124.8	180.6	176.1	4.55	39.719		
1,400.0	1,397.7	1,391.6	1,389.5	2.7	2.7	-169.32	50.2	-127.5	194.2	189.3	4.92	39.470		
1,500.0	1,497.3	1,491.6	1,489.2	2.9	2.9	-167.74	58.3	-129.0	207.1	201.8	5.30	39.105		
1,600.0	1,596.8	1,590.6	1,587.9	3.1	3.1	-166.30	66.6	-130.3	220.0	214.4	5.67	38.787		
1,700.0	1,696.4	1,689.7	1,686.5	3.3	3.3	-165.02	74.8	-131.6	233.0	227.0	6.05	38.519		
1,800.0	1,796.0	1,788.7	1,785.2	3.6	3.5	-163.87	83.1	-132.8	246.2	239.7	6.43	38.290		
1,900.0	1,895.6	1,887.7	1,883.9	3.8	3.8	-162.84	91.4	-134.1	259.4	252.6	6.81	38.092		
2,000.0	1,995.2	1,986.7	1,982.5	4.0	4.0	-161.91	99.6	-135.4	272.7	265.5	7.19	37.919		
2,100.0	2,094.7	2,085.7	2,081.2	4.3	4.2	-161.07	107.9	-136.7	286.0	278.5	7.57	37.768		
2,200.0	2,194.3	2,184.8	2,179.9	4.5	4.4	-160.30	116.1	-137.9	299.4	291.5	7.96	37.634		
2,300.0	2,293.9	2,283.8	2,278.5	4.7	4.6	-159.60	124.4	-139.2	312.9	304.6	8.34	37.514		
2,400.0	2,393.5	2,382.8	2,377.2	5.0	4.9	-158.95	132.6	-140.5	326.4	317.7	8.73	37.407		
2,500.0	2,493.0	2,481.8	2,475.9	5.2	5.1	-158.36	140.9	-141.8	339.9	330.8	9.11	37.311		
2,600.0	2,592.6	2,580.8	2,574.5	5.4	5.3	-157.81	149.1	-143.1	353.5	344.0	9.50	37.223		
2,700.0	2,692.2	2,679.9	2,673.2	5.7	5.5	-157.30	157.4	-144.3	367.1	357.2	9.88	37.144		
2,800.0	2,791.8	2,778.9	2,771.9	5.9	5.7	-156.83	165.7	-145.6	380.7	370.5	10.27	37.071		
2,900.0	2,891.4	2,877.9	2,870.6	6.1	6.0	-156.39	173.9	-146.9	394.4	383.7	10.66	37.005		
3,000.0	2,990.9	2,976.9	2,969.2	6.4	6.2	-155.98	182.2	-148.2	408.1	397.0	11.05	36.944		
3,100.0	3,090.5	3,075.9	3,067.9	6.6	6.4	-155.60	190.4	-149.4	421.8	410.3	11.43	36.888		
3,200.0	3,190.1	3,175.0	3,166.6	6.8	6.6	-155.24	198.7	-150.7	435.5	423.6	11.82	36.836		
3,300.0	3,289.7	3,274.0	3,265.2	7.1	6.9	-154.90	206.9	-152.0	449.2	437.0	12.21	36.787		
3,400.0	3,389.2	3,373.0	3,363.9	7.3	7.1	-154.59	215.2	-153.3	462.9	450.3	12.60	36.742		
3,500.0	3,488.8	3,472.0	3,462.6	7.6	7.3	-154.29	223.4	-154.6	476.7	463.7	12.99	36.700		
3,600.0	3,588.4	3,571.0	3,561.2	7.8	7.5	-154.01	231.7	-155.8	490.4	477.1	13.38	36.661		
3,700.0	3,688.0	3,670.1	3,659.9	8.0	7.8	-153.74	240.0	-157.1	504.2	490.5	13.77	36.625		
3,800.0	3,787.6	3,769.1	3,758.6	8.3	8.0	-153.49	248.2	-158.4	518.0	503.8	14.16	36.590		
3,900.0	3,887.1	3,868.1	3,857.2	8.5	8.2	-153.25	256.5	-159.7	531.8	517.3	14.55	36.558		
4,000.0	3,986.7	3,967.1	3,955.9	8.7	8.4	-153.02	264.7	-160.9	545.6	530.7	14.94	36.527		
4,100.0	4,086.3	4,066.1	4,054.6	9.0	8.7	-152.80	273.0	-162.2	559.4	544.1	15.33	36.499		
4,200.0	4,185.9	4,165.2	4,153.2	9.2	8.9	-152.60	281.2	-163.5	573.2	557.5	15.72	36.472		
4,300.0	4,285.4	4,264.2	4,251.9	9.4	9.1	-152.40	289.5	-164.8	587.1	570.9	16.11	36.446		
4,400.0	4,385.0	4,363.2	4,350.6	9.7	9.3	-152.22	297.7	-166.1	600.9	584.4	16.50	36.422		
4,500.0	4,484.6	4,462.2	4,449.2	9.9	9.6	-152.04	306.0	-167.3	614.7	597.8	16.89	36.399		
4,600.0	4,584.2	4,561.2	4,547.9	10.2	9.8	-151.87	314.3	-168.6	628.6	611.3	17.28	36.377		
4,700.0	4,683.8	4,660.3	4,646.6	10.4	10.0	-151.70	322.5	-169.9	642.4	624.7	17.67	36.356		
4,800.0	4,783.3	4,759.3	4,745.2	10.6	10.2	-151.55	330.8	-171.2	656.3	638.2	18.06	36.336		
4,900.0	4,882.9	4,858.3	4,843.9	10.9	10.5	-151.40	339.0	-172.4	670.1	651.7	18.45	36.317		
5,000.0	4,982.5	4,957.3	4,942.6	11.1	10.7	-151.25	347.3	-173.7	684.0	665.1	18.84	36.299		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2B-7H-E168 - HZ - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
5,100.0	5,082.1	5,056.3	5,041.2	11.3	10.9	-151.12	355.5	-175.0	697.9	678.6	19.23	36.282	
5,200.0	5,181.7	5,155.4	5,139.9	11.6	11.1	-150.98	363.8	-176.3	711.7	692.1	19.63	36.265	
5,300.0	5,281.2	5,254.4	5,238.6	11.8	11.4	-150.86	372.0	-177.6	725.6	705.6	20.02	36.249	
5,400.0	5,380.8	5,353.4	5,337.2	12.0	11.6	-150.73	380.3	-178.8	739.5	719.1	20.41	36.234	
5,500.0	5,480.4	5,452.4	5,435.9	12.3	11.8	-150.61	388.6	-180.1	753.4	732.6	20.80	36.220	
5,600.0	5,580.0	5,551.4	5,534.6	12.5	12.0	-150.50	396.8	-181.4	767.2	746.0	21.19	36.206	
5,700.0	5,679.5	5,650.5	5,633.2	12.8	12.3	-150.39	405.1	-182.7	781.1	759.5	21.58	36.193	
5,800.0	5,779.1	5,749.5	5,731.9	13.0	12.5	-150.28	413.3	-183.9	795.0	773.0	21.97	36.180	
5,900.0	5,878.7	5,848.5	5,830.6	13.2	12.7	-150.18	421.6	-185.2	808.9	786.5	22.37	36.167	
6,000.0	5,978.3	5,947.5	5,929.2	13.5	12.9	-150.08	429.8	-186.5	822.8	800.0	22.76	36.155	
6,100.0	6,077.9	6,046.5	6,027.9	13.7	13.2	-149.99	438.1	-187.8	836.7	813.5	23.15	36.144	
6,200.0	6,177.4	6,145.6	6,126.6	13.9	13.4	-149.89	446.3	-189.1	850.6	827.1	23.54	36.133	
6,300.0	6,277.0	6,244.6	6,225.2	14.2	13.6	-149.80	454.6	-190.3	864.5	840.6	23.93	36.122	
6,400.0	6,376.6	6,343.6	6,323.9	14.4	13.8	-149.72	462.9	-191.6	878.4	854.1	24.32	36.112	
6,500.0	6,476.2	6,442.6	6,422.6	14.7	14.1	-149.63	471.1	-192.9	892.3	867.6	24.72	36.102	
6,600.0	6,575.7	6,541.6	6,521.2	14.9	14.3	-149.55	479.4	-194.2	906.2	881.1	25.11	36.092	
6,700.0	6,675.3	6,640.7	6,619.9	15.1	14.5	-149.47	487.6	-195.4	920.1	894.6	25.50	36.083	
6,800.0	6,774.9	6,739.7	6,718.6	15.4	14.7	-149.40	495.9	-196.7	934.0	908.1	25.89	36.074	
6,900.0	6,874.5	6,838.7	6,817.2	15.6	15.0	-149.32	504.1	-198.0	947.9	921.7	26.28	36.066	
6,949.9	6,924.1	6,888.1	6,866.5	15.7	15.1	-149.29	508.3	-198.6	954.9	928.4	26.48	36.061	
7,000.0	6,974.0	6,938.8	6,917.0	15.8	15.3	-149.20	516.6	-199.8	967.1	940.1	26.87	36.052	
7,050.0	7,023.4	7,008.3	7,008.6	15.9	15.8	-149.11	524.9	-200.9	979.1	951.1	27.26	36.043	
7,100.0	7,072.1	7,079.4	7,095.8	16.0	16.3	-149.02	533.2	-202.0	991.1	962.1	27.65	36.034	
7,150.0	7,119.7	7,152.4	7,191.9	16.2	16.7	-148.93	541.5	-203.1	1,003.1	973.1	28.04	36.025	
7,200.0	7,165.9	7,226.3	7,486.9	16.3	17.3	-148.84	549.8	-204.2	1,015.1	984.1	28.43	36.016	
7,250.0	7,210.2	7,300.5	7,480.9	16.4	18.3	-148.75	558.1	-205.3	1,027.1	995.1	28.82	36.007	
7,300.0	7,252.5	7,674.8	7,473.8	16.5	19.3	-148.66	566.4	-206.4	1,039.1	1,006.1	29.21	35.998	
7,350.0	7,292.2	7,649.4	7,465.6	16.7	20.3	-148.57	574.7	-207.5	1,051.1	1,017.1	29.60	35.989	
7,400.0	7,329.2	7,624.0	7,456.4	16.8	21.3	-148.48	583.0	-208.6	1,063.1	1,028.1	30.00	35.980	
7,450.0	7,363.2	7,598.6	7,446.2	17.0	22.3	-148.39	591.3	-209.7	1,075.1	1,039.1	30.39	35.971	
7,493.8	7,390.2	7,576.5	7,436.5	17.2	23.3	-148.30	600.0	-210.8	1,087.1	1,050.1	30.78	35.962	
7,500.0	7,393.8	7,573.3	7,435.0	17.3	23.8	-148.21	608.3	-211.9	1,099.1	1,061.1	31.17	35.953	
7,550.0	7,421.0	7,548.1	7,422.9	17.5	24.8	-148.12	616.6	-213.0	1,111.1	1,072.1	31.56	35.944	
7,600.0	7,444.3	7,522.9	7,409.8	17.8	25.8	-148.03	624.9	-214.1	1,123.1	1,083.1	31.95	35.935	
7,650.0	7,463.8	7,500.0	7,397.1	18.2	26.8	-147.94	633.2	-215.2	1,135.1	1,094.1	32.34	35.926	
7,700.0	7,479.2	7,472.5	7,380.8	18.5	27.8	-147.85	641.5	-216.3	1,147.1	1,105.1	32.73	35.917	
7,750.0	7,490.4	7,450.0	7,366.7	18.9	28.8	-147.76	649.8	-217.4	1,159.1	1,116.1	33.12	35.908	
7,800.0	7,497.4	7,422.2	7,348.4	19.3	29.8	-147.67	658.1	-218.5	1,171.1	1,127.1	33.51	35.899	
7,850.0	7,500.0	7,400.0	7,333.0	19.8	30.8	-147.58	666.4	-219.6	1,183.1	1,138.1	33.90	35.890	
7,855.2	7,500.0	7,400.0	7,333.0	19.9	31.3	-147.49	674.7	-220.7	1,195.1	1,149.1	34.29	35.881	
7,900.0	7,500.0	7,372.9	7,313.4	20.3	32.3	-147.40	683.0	-221.8	1,207.1	1,160.1	34.68	35.872	
8,000.0	7,500.0	7,330.4	7,281.0	21.3	33.8	-147.31	691.3	-222.9	1,219.1	1,171.1	35.07	35.863	
8,100.0	7,500.0	7,300.0	7,256.7	22.5	35.3	-147.22	700.0	-224.0	1,231.1	1,182.1	35.46	35.854	
8,200.0	7,500.0	7,264.3	7,226.9	23.7	36.8	-147.13	708.3	-225.1	1,243.1	1,193.1	35.85	35.845	
8,300.0	7,500.0	7,250.0	7,214.6	25.0	38.3	-147.04	716.6	-226.2	1,255.1	1,204.1	36.24	35.836	
8,400.0	7,500.0	7,216.3	7,184.9	26.3	39.8	-146.95	724.9	-227.3	1,267.1	1,215.1	36.63	35.827	
8,500.0	7,500.0	7,200.0	7,170.3	27.7	41.3	-146.86	733.2	-228.4	1,279.1	1,226.1	37.02	35.818	
8,600.0	7,500.0	7,180.2	7,152.2	29.1	42.8	-146.77	741.5	-229.5	1,291.1	1,237.1	37.41	35.809	
8,700.0	7,500.0	7,150.0	7,124.1	30.5	44.3	-146.68	749.8	-230.6	1,303.1	1,248.1	37.80	35.800	
8,800.0	7,500.0	7,150.0	7,124.1	32.0	45.8	-146.59	758.1	-231.7	1,315.1	1,259.1	38.19	35.791	
8,900.0	7,500.0	7,150.0	7,124.1	33.5	47.3	-146.50	766.4	-232.8	1,327.1	1,270.1	38.58	35.782	
9,000.0	7,500.0	7,130.2	7,105.5	35.1	48.8	-146.42	774.7	-233.9	1,339.1	1,281.1	38.97	35.773	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2B-7H-E168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink 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		
9,100.0	7,500.0	7,120.9	7,096.5	36.6	15.1	-63.92	485.7	-201.6	1,572.5	1,526.9	45.54	34.533		
9,200.0	7,500.0	7,100.0	7,076.5	38.2	15.1	-62.80	491.5	-201.4	1,654.8	1,608.1	46.66	35.464		
9,300.0	7,500.0	7,100.0	7,076.5	39.8	15.1	-62.80	491.5	-201.4	1,738.5	1,690.4	48.13	36.120		
9,400.0	7,500.0	7,100.0	7,076.5	41.4	15.1	-62.80	491.5	-201.4	1,823.9	1,774.3	49.61	36.765		
9,500.0	7,500.0	7,100.0	7,076.5	43.0	15.1	-62.80	491.5	-201.4	1,910.7	1,859.6	51.10	37.395		
9,600.0	7,500.0	7,100.0	7,076.5	44.6	15.1	-62.80	491.5	-201.4	1,998.8	1,946.2	52.59	38.008		
9,700.0	7,500.0	7,079.8	7,056.9	46.2	15.2	-61.73	496.4	-201.1	2,087.5	2,033.8	53.65	38.910		
9,800.0	7,500.0	7,074.8	7,052.0	47.9	15.2	-61.46	497.5	-201.0	2,177.3	2,122.3	55.02	39.571		
9,900.0	7,500.0	7,070.1	7,047.4	49.5	15.2	-61.22	498.5	-201.0	2,268.0	2,211.6	56.40	40.211		
10,000.0	7,500.0	7,050.0	7,027.7	51.2	15.2	-60.17	502.4	-200.7	2,359.6	2,302.2	57.39	41.111		
10,046.2	7,500.0	7,050.0	7,027.7	51.9	15.2	-60.17	502.4	-200.7	2,401.9	2,343.8	58.08	41.358		
10,100.0	7,500.0	7,050.0	7,027.7	52.8	15.2	-60.78	502.4	-200.7	2,451.4	2,392.3	59.10	41.477		
10,200.0	7,500.0	7,050.0	7,027.7	54.5	15.2	-61.90	502.4	-200.7	2,543.2	2,482.3	60.99	41.698		
10,300.0	7,500.0	7,050.0	7,027.7	56.1	15.2	-62.98	502.4	-200.7	2,635.1	2,572.3	62.86	41.921		
10,400.0	7,500.0	7,050.0	7,027.7	57.8	15.2	-64.02	502.4	-200.7	2,727.0	2,662.3	64.70	42.146		
10,500.0	7,500.0	7,050.0	7,027.7	59.5	15.2	-65.02	502.4	-200.7	2,818.8	2,752.3	66.52	42.374		
10,600.0	7,500.0	7,050.0	7,027.7	61.1	15.2	-65.97	502.4	-200.7	2,910.6	2,842.3	68.31	42.606		
10,700.0	7,500.0	7,050.0	7,027.7	62.8	15.2	-66.89	502.4	-200.7	3,002.3	2,932.2	70.08	42.843		
10,800.0	7,500.0	7,050.0	7,027.7	64.4	15.2	-67.77	502.4	-200.7	3,093.8	3,022.0	71.81	43.085		
10,906.2	7,500.0	7,050.0	7,027.7	66.2	15.2	-68.66	502.4	-200.7	3,190.9	3,117.3	73.61	43.347		
11,000.0	7,500.0	7,050.0	7,027.7	67.7	15.2	-68.66	502.4	-200.7	3,276.8	3,201.7	75.12	43.619		
11,100.0	7,500.0	7,050.0	7,027.7	69.4	15.2	-68.66	502.4	-200.7	3,368.9	3,292.2	76.74	43.903		
11,200.0	7,500.0	7,050.0	7,027.7	71.0	15.2	-68.66	502.4	-200.7	3,461.4	3,383.1	78.35	44.179		
11,256.2	7,500.0	7,050.0	7,027.7	72.0	15.2	-68.66	502.4	-200.7	3,513.6	3,434.3	79.26	44.331		
11,300.0	7,500.0	7,050.0	7,027.7	72.7	15.2	-68.25	502.4	-200.7	3,554.4	3,474.5	79.89	44.493		
11,400.0	7,500.0	7,026.9	7,004.9	74.4	15.2	-66.23	506.0	-200.4	3,647.6	3,567.0	80.69	45.206		
11,500.0	7,500.0	7,025.1	7,003.2	76.1	15.2	-64.94	506.3	-200.4	3,742.2	3,660.4	81.78	45.762		
11,600.0	7,500.0	7,023.4	7,001.4	77.8	15.2	-63.49	506.5	-200.4	3,837.5	3,754.9	82.66	46.426		
11,700.0	7,500.0	7,000.0	6,978.2	79.5	15.2	-60.81	509.0	-200.1	3,934.0	3,851.4	82.56	47.651		
11,800.0	7,500.0	7,000.0	6,978.2	81.2	15.2	-58.96	509.0	-200.1	4,030.5	3,947.7	82.84	48.651		
11,900.0	7,500.0	7,000.0	6,978.2	82.9	15.2	-56.82	509.0	-200.1	4,127.6	4,044.8	82.73	49.893		
12,000.0	7,500.0	7,000.0	6,978.2	84.7	15.2	-54.33	509.0	-200.1	4,225.1	4,143.0	82.10	51.465		
12,100.0	7,500.0	7,000.0	6,978.2	86.4	15.2	-51.41	509.0	-200.1	4,323.0	4,242.2	80.79	53.507		
12,169.2	7,500.0	7,000.0	6,978.2	87.6	15.2	-49.09	509.0	-200.1	4,391.0	4,311.6	79.40	55.305		
12,200.0	7,500.0	7,000.0	6,978.2	88.1	15.2	-49.09	509.0	-200.1	4,421.3	4,341.5	79.80	55.404		
12,300.0	7,500.0	7,000.0	6,978.2	89.8	15.2	-49.09	509.0	-200.1	4,519.7	4,438.5	81.12	55.717		
12,400.0	7,500.0	7,000.0	6,978.2	91.6	15.2	-49.09	509.0	-200.1	4,618.1	4,535.7	82.43	56.022		
12,500.0	7,500.0	7,000.0	6,978.2	93.3	15.2	-49.09	509.0	-200.1	4,716.7	4,632.9	83.75	56.317		
12,600.0	7,500.0	7,000.0	6,978.2	95.0	15.2	-49.09	509.0	-200.1	4,815.3	4,730.2	85.07	56.603		
12,700.0	7,500.0	7,000.0	6,978.2	96.8	15.2	-49.09	509.0	-200.1	4,913.9	4,827.5	86.39	56.881		
12,800.0	7,500.0	7,000.0	6,978.2	98.5	15.2	-49.09	509.0	-200.1	5,012.6	4,924.9	87.71	57.151		
12,900.0	7,500.0	7,000.0	6,978.2	100.2	15.2	-49.09	509.0	-200.1	5,111.4	5,022.3	89.03	57.413		
13,000.0	7,500.0	7,000.0	6,978.2	102.0	15.2	-49.09	509.0	-200.1	5,210.2	5,119.8	90.35	57.668		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2C-7H-E168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	-89.74	0.4	-80.0	80.0					
100.0	100.0	100.0	100.0	0.2	0.2	-89.74	0.4	-80.0	80.0	79.7	0.30	263.581		
200.0	200.0	200.0	200.0	0.3	0.3	-89.74	0.4	-80.0	80.0	79.4	0.65	122.629		
300.0	300.0	300.0	300.0	0.5	0.5	-89.74	0.4	-80.0	80.0	79.0	1.00	79.901		
400.0	400.0	400.0	400.0	0.7	0.7	-89.74	0.4	-80.0	80.0	78.7	1.35	59.255		
500.0	500.0	500.6	500.6	0.8	0.9	-89.17	1.2	-79.7	79.7	78.0	1.70	46.833		
569.6	569.6	570.6	570.6	1.0	1.0	175.55	2.6	-78.9	79.4	77.5	1.95	40.780 CC		
600.0	600.0	601.1	601.1	1.0	1.0	176.23	3.5	-78.5	79.5	77.4	2.05	38.678 ES		
700.0	700.0	701.6	701.4	1.2	1.2	179.23	7.5	-76.6	80.4	78.0	2.41	33.345		
800.0	799.9	801.8	801.5	1.4	1.4	-176.73	13.0	-73.9	82.9	80.1	2.78	29.815		
900.0	899.7	901.8	901.2	1.6	1.6	-171.97	20.1	-70.4	87.1	83.9	3.16	27.550		
1,000.0	999.4	1,001.4	1,000.4	1.8	1.8	-167.42	27.9	-66.7	93.4	89.8	3.55	26.327		
1,026.5	1,025.7	1,027.7	1,026.6	1.8	1.9	-166.35	29.9	-65.7	95.4	91.8	3.65	26.140		
1,100.0	1,098.9	1,100.8	1,099.5	2.0	2.0	-163.67	35.7	-62.9	101.4	97.5	3.94	25.730		
1,200.0	1,198.5	1,200.3	1,198.5	2.2	2.3	-160.49	43.4	-59.1	109.9	105.6	4.34	25.304		
1,300.0	1,298.1	1,299.8	1,297.6	2.4	2.5	-157.78	51.2	-55.3	118.7	113.9	4.75	24.987		
1,400.0	1,397.7	1,399.3	1,396.7	2.7	2.7	-155.44	59.0	-51.5	127.7	122.5	5.16	24.746		
1,500.0	1,497.3	1,498.7	1,495.8	2.9	2.9	-153.42	66.7	-47.8	136.9	131.3	5.57	24.561		
1,600.0	1,596.8	1,598.2	1,594.9	3.1	3.2	-151.64	74.5	-44.0	146.2	140.2	5.99	24.416		
1,700.0	1,696.4	1,697.7	1,694.0	3.3	3.4	-150.09	82.3	-40.2	155.6	149.2	6.40	24.301		
1,800.0	1,796.0	1,797.1	1,793.1	3.6	3.6	-148.71	90.0	-36.4	165.2	158.4	6.82	24.209		
1,900.0	1,895.6	1,896.6	1,892.2	3.8	3.8	-147.48	97.8	-32.6	174.8	167.6	7.24	24.134		
2,000.0	1,995.2	1,996.1	1,991.3	4.0	4.1	-146.38	105.6	-28.9	184.5	176.9	7.67	24.073		
2,100.0	2,094.7	2,095.5	2,090.4	4.3	4.3	-145.39	113.3	-25.1	194.3	186.2	8.09	24.023		
2,200.0	2,194.3	2,195.0	2,189.5	4.5	4.5	-144.50	121.1	-21.3	204.1	195.6	8.51	23.981		
2,300.0	2,293.9	2,294.5	2,288.6	4.7	4.7	-143.69	128.9	-17.5	214.0	205.0	8.94	23.947		
2,400.0	2,393.5	2,393.9	2,387.7	5.0	5.0	-142.95	136.6	-13.7	223.9	214.5	9.36	23.918		
2,500.0	2,493.0	2,493.4	2,486.8	5.2	5.2	-142.27	144.4	-10.0	233.8	224.0	9.79	23.893		
2,600.0	2,592.6	2,592.9	2,585.8	5.4	5.4	-141.65	152.2	-6.2	243.8	233.6	10.21	23.873		
2,700.0	2,692.2	2,692.3	2,684.9	5.7	5.7	-141.07	159.9	-2.4	253.8	243.1	10.64	23.855		
2,800.0	2,791.8	2,791.8	2,784.0	5.9	5.9	-140.54	167.7	1.4	263.8	252.7	11.06	23.841		
2,900.0	2,891.4	2,891.3	2,883.1	6.1	6.1	-140.05	175.5	5.2	273.8	262.3	11.49	23.828		
3,000.0	2,990.9	2,990.8	2,982.2	6.4	6.3	-139.59	183.2	8.9	283.9	272.0	11.92	23.818		
3,100.0	3,090.5	3,090.2	3,081.3	6.6	6.6	-139.17	191.0	12.7	294.0	281.6	12.35	23.809		
3,200.0	3,190.1	3,189.7	3,180.4	6.8	6.8	-138.77	198.8	16.5	304.0	291.3	12.77	23.801		
3,300.0	3,289.7	3,289.2	3,279.5	7.1	7.0	-138.40	206.5	20.3	314.1	300.9	13.20	23.794		
3,400.0	3,389.2	3,388.6	3,378.6	7.3	7.3	-138.05	214.3	24.1	324.2	310.6	13.63	23.789		
3,500.0	3,488.8	3,488.1	3,477.7	7.6	7.5	-137.73	222.1	27.8	334.4	320.3	14.06	23.784		
3,600.0	3,588.4	3,587.6	3,576.8	7.8	7.7	-137.42	229.8	31.6	344.5	330.0	14.49	23.780		
3,700.0	3,688.0	3,687.0	3,675.9	8.0	7.9	-137.13	237.6	35.4	354.6	339.7	14.92	23.777		
3,800.0	3,787.6	3,786.5	3,775.0	8.3	8.2	-136.85	245.4	39.2	364.8	349.5	15.34	23.774		
3,900.0	3,887.1	3,886.0	3,874.1	8.5	8.4	-136.59	253.1	43.0	375.0	359.2	15.77	23.772		
4,000.0	3,986.7	3,985.4	3,973.2	8.7	8.6	-136.35	260.9	46.7	385.1	368.9	16.20	23.770		
4,100.0	4,086.3	4,084.9	4,072.2	9.0	8.9	-136.11	268.7	50.5	395.3	378.7	16.63	23.769		
4,200.0	4,185.9	4,184.4	4,171.3	9.2	9.1	-135.89	276.4	54.3	405.5	388.4	17.06	23.768		
4,300.0	4,285.4	4,283.8	4,270.4	9.4	9.3	-135.68	284.2	58.1	415.7	398.2	17.49	23.767		
4,400.0	4,385.0	4,383.3	4,369.5	9.7	9.5	-135.48	292.0	61.9	425.9	407.9	17.92	23.766		
4,500.0	4,484.6	4,482.8	4,468.6	9.9	9.8	-135.29	299.7	65.6	436.0	417.7	18.35	23.766		
4,600.0	4,584.2	4,582.3	4,567.7	10.2	10.0	-135.11	307.5	69.4	446.2	427.5	18.78	23.765		
4,700.0	4,683.8	4,681.7	4,666.8	10.4	10.2	-134.93	315.3	73.2	456.5	437.2	19.21	23.765		
4,800.0	4,783.3	4,781.2	4,765.9	10.6	10.5	-134.77	323.0	77.0	466.7	447.0	19.64	23.765		
4,900.0	4,882.9	4,880.7	4,865.0	10.9	10.7	-134.61	330.8	80.7	476.9	456.8	20.07	23.766		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2C-7H-E168 - HZ - Plan #2													Offset Site Error: 0.0 ft	
Survey Program: O-Geolink 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		
5,000.0	4,982.5	4,980.1	4,964.1	11.1	10.9	-134.46	338.6	84.5	487.1	466.6	20.50	23.766		
5,100.0	5,082.1	5,079.6	5,063.2	11.3	11.2	-134.31	346.3	88.3	497.3	476.4	20.92	23.766		
5,200.0	5,181.7	5,179.1	5,162.3	11.6	11.4	-134.17	354.1	92.1	507.5	486.2	21.35	23.767		
5,300.0	5,281.2	5,278.5	5,261.4	11.8	11.6	-134.03	361.9	95.9	517.7	496.0	21.78	23.767		
5,400.0	5,380.8	5,378.0	5,360.5	12.0	11.8	-133.90	369.6	99.6	528.0	505.8	22.21	23.768		
5,500.0	5,480.4	5,477.5	5,459.5	12.3	12.1	-133.78	377.4	103.4	538.2	515.6	22.64	23.769		
5,600.0	5,580.0	5,576.9	5,558.6	12.5	12.3	-133.66	385.1	107.2	548.4	525.4	23.07	23.769		
5,700.0	5,679.5	5,676.4	5,657.7	12.8	12.5	-133.54	392.9	111.0	558.7	535.2	23.50	23.770		
5,800.0	5,779.1	5,775.9	5,756.8	13.0	12.8	-133.43	400.7	114.8	568.9	545.0	23.93	23.771		
5,900.0	5,878.7	5,875.3	5,855.9	13.2	13.0	-133.32	408.4	118.5	579.1	554.8	24.36	23.772		
6,000.0	5,978.3	5,974.8	5,955.0	13.5	13.2	-133.22	416.2	122.3	589.4	564.6	24.79	23.773		
6,100.0	6,077.9	6,074.3	6,054.1	13.7	13.4	-133.12	424.0	126.1	599.6	574.4	25.22	23.774		
6,200.0	6,177.4	6,173.8	6,153.2	13.9	13.7	-133.02	431.7	129.9	609.9	584.2	25.65	23.774		
6,300.0	6,277.0	6,273.2	6,252.3	14.2	13.9	-132.93	439.5	133.7	620.1	594.0	26.08	23.775		
6,400.0	6,376.6	6,372.7	6,351.4	14.4	14.1	-132.84	447.3	137.4	630.4	603.9	26.51	23.776		
6,500.0	6,476.2	6,472.2	6,450.5	14.7	14.4	-132.75	455.0	141.2	640.6	613.7	26.94	23.777		
6,600.0	6,575.7	6,571.6	6,549.6	14.9	14.6	-132.66	462.8	145.0	650.9	623.5	27.37	23.778		
6,700.0	6,675.3	6,671.1	6,648.7	15.1	14.8	-132.58	470.6	148.8	661.1	633.3	27.80	23.779		
6,800.0	6,774.9	6,770.6	6,747.8	15.4	15.1	-132.50	478.3	152.6	671.4	643.1	28.23	23.780		
6,900.0	6,874.5	6,870.0	6,846.8	15.6	15.3	-132.42	486.1	156.3	681.6	653.0	28.66	23.781		
6,949.9	6,924.1	6,919.6	6,896.3	15.7	15.4	-132.39	490.0	158.2	686.7	657.9	28.88	23.782		
7,000.0	6,974.0	6,969.6	6,946.1	15.8	15.5	-86.05	493.9	160.1	690.1	661.0	29.14	23.680		
7,050.0	7,023.4	7,019.5	6,995.7	15.9	15.6	-65.88	497.8	162.0	690.0	660.7	29.32	23.537		
7,100.0	7,072.1	7,069.0	7,045.0	16.0	15.7	-57.63	501.7	163.9	686.4	657.0	29.40	23.349		
7,150.0	7,119.7	7,117.7	7,093.6	16.2	15.9	-54.02	505.5	165.8	679.5	650.1	29.40	23.109		
7,200.0	7,165.9	7,162.6	7,138.3	16.3	16.0	-59.33	488.4	174.4	666.8	637.4	29.42	22.663		
7,250.0	7,210.2	7,206.9	7,182.5	16.4	16.1	-77.47	385.3	182.1	637.0	608.6	28.33	22.483		
7,300.0	7,252.5	7,249.2	7,225.1	16.5	16.2	-88.09	340.4	184.1	603.5	575.8	27.72	21.775		
7,350.0	7,292.2	7,288.9	7,264.6	16.7	16.4	-93.89	325.7	184.6	571.1	543.6	27.51	20.756		
7,400.0	7,329.2	7,325.9	7,301.6	16.8	16.5	-97.13	324.5	184.6	540.9	513.4	27.50	19.671		
7,450.0	7,363.2	7,359.9	7,335.6	17.0	16.7	-98.82	330.0	184.4	513.8	486.2	27.60	18.613		
7,500.0	7,393.8	7,390.5	7,366.2	17.3	17.0	-99.43	339.0	184.1	490.3	462.5	27.83	17.622		
7,550.0	7,421.0	7,417.7	7,393.4	17.5	17.2	-99.19	350.0	183.7	470.9	442.8	28.16	16.722		
7,600.0	7,444.3	7,441.0	7,417.7	17.8	17.5	-98.26	362.1	183.2	456.0	427.4	28.62	15.937		
7,650.0	7,463.8	7,460.5	7,437.2	18.2	17.9	-96.73	374.7	182.6	445.9	416.7	29.16	15.289		
7,700.0	7,479.2	7,475.9	7,452.5	18.5	18.2	-94.66	387.5	182.0	440.5	410.7	29.77	14.797		
7,732.5	7,487.0	7,483.7	7,460.3	18.8	18.5	-93.06	395.7	181.6	439.5	409.4	30.18	14.565		
7,750.0	7,490.4	7,487.1	7,463.8	18.9	18.6	-92.13	400.1	181.4	439.8	409.4	30.39	14.473		
7,800.0	7,497.4	7,494.1	7,471.0	19.3	19.0	-89.19	412.4	180.7	443.5	412.5	30.95	14.329 SF		
7,850.0	7,500.0	7,508.2	7,467.8	19.8	15.6	-85.93	424.3	180.0	451.1	419.7	31.40	14.366		
7,855.2	7,500.0	7,505.8	7,465.8	19.9	15.6	-85.58	425.5	179.9	452.1	420.7	31.44	14.380		
7,900.0	7,500.0	7,487.0	7,449.6	20.3	15.7	-83.51	435.1	179.3	462.5	430.6	31.90	14.495		
8,000.0	7,500.0	7,450.0	7,416.9	21.3	15.8	-79.40	452.3	178.1	496.8	463.9	32.91	15.096		
8,100.0	7,500.0	7,423.4	7,392.7	22.5	15.8	-76.45	463.3	177.2	545.0	511.0	33.94	16.056		
8,200.0	7,500.0	7,400.0	7,371.0	23.7	15.9	-73.87	472.1	176.3	604.3	569.3	34.98	17.274		
8,300.0	7,500.0	7,381.5	7,353.6	25.0	15.9	-71.86	478.4	175.7	672.2	636.1	36.06	18.639		
8,400.0	7,500.0	7,365.6	7,338.5	26.3	15.9	-70.16	483.3	175.1	746.6	709.4	37.17	20.083		
8,500.0	7,500.0	7,350.0	7,323.6	27.7	16.0	-68.51	487.8	174.5	825.9	787.6	38.27	21.577		
8,600.0	7,500.0	7,350.0	7,323.6	29.1	16.0	-68.51	487.8	174.5	909.0	869.2	39.71	22.891		
8,700.0	7,500.0	7,330.5	7,304.7	30.5	16.0	-66.49	492.8	173.8	994.7	954.0	40.68	24.449		
8,800.0	7,500.0	7,321.7	7,296.1	32.0	16.0	-65.60	494.8	173.5	1,082.8	1,040.9	41.90	25.840		
8,900.0	7,500.0	7,300.0	7,275.0	33.5	16.0	-63.44	499.3	172.7	1,172.8	1,130.1	42.74	27.442		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2C-7H-E168 - HZ - Plan #2											Offset Site Error: 0.0 ft		
Survey Program: 0-Geolink 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	
9,000.0	7,500.0	7,300.0	7,275.0	35.1	16.0	-63.44	499.3	172.7	1,263.9	1,219.7	44.19	28.603	
9,100.0	7,500.0	7,300.0	7,275.0	36.6	16.0	-63.44	499.3	172.7	1,356.2	1,310.5	45.65	29.710	
9,200.0	7,500.0	7,300.0	7,275.0	38.2	16.0	-63.44	499.3	172.7	1,449.5	1,402.4	47.12	30.764	
9,300.0	7,500.0	7,300.0	7,275.0	39.8	16.0	-63.44	499.3	172.7	1,543.7	1,495.1	48.60	31.765	
9,400.0	7,500.0	7,300.0	7,275.0	41.4	16.0	-63.44	499.3	172.7	1,638.6	1,588.5	50.08	32.716	
9,500.0	7,500.0	7,300.0	7,275.0	43.0	16.0	-63.44	499.3	172.7	1,734.0	1,682.4	51.58	33.619	
9,600.0	7,500.0	7,277.7	7,253.0	44.6	16.0	-61.30	503.1	171.8	1,829.4	1,777.2	52.20	35.048	
9,700.0	7,500.0	7,274.2	7,249.6	46.2	16.0	-60.97	503.6	171.7	1,925.5	1,872.0	53.53	35.973	
9,800.0	7,500.0	7,271.0	7,246.4	47.9	16.0	-60.67	504.0	171.6	2,022.0	1,967.2	54.86	36.855	
9,900.0	7,500.0	7,250.0	7,225.5	49.5	16.0	-58.74	506.5	170.8	2,119.2	2,063.8	55.40	38.256	
10,000.0	7,500.0	7,250.0	7,225.5	51.2	16.0	-58.74	506.5	170.8	2,216.2	2,159.3	56.85	38.985	
10,046.2	7,500.0	7,250.0	7,225.5	51.9	16.0	-58.74	506.5	170.8	2,261.1	2,203.5	57.52	39.310	
10,100.0	7,500.0	7,250.0	7,225.5	52.8	16.0	-59.88	506.5	170.8	2,313.4	2,254.6	58.79	39.347	
10,200.0	7,500.0	7,250.0	7,225.5	54.5	16.0	-61.85	506.5	170.8	2,410.5	2,349.4	61.08	39.465	
10,300.0	7,500.0	7,250.0	7,225.5	56.1	16.0	-63.67	506.5	170.8	2,507.4	2,444.2	63.26	39.636	
10,400.0	7,500.0	7,250.0	7,225.5	57.8	16.0	-65.34	506.5	170.8	2,604.3	2,538.9	65.35	39.850	
10,500.0	7,500.0	7,250.0	7,225.5	59.5	16.0	-66.87	506.5	170.8	2,700.9	2,633.6	67.35	40.101	
10,600.0	7,500.0	7,250.0	7,225.5	61.1	16.0	-68.28	506.5	170.8	2,797.5	2,728.2	69.28	40.381	
10,700.0	7,500.0	7,250.0	7,225.5	62.8	16.0	-69.57	506.5	170.8	2,893.8	2,822.7	71.13	40.685	
10,800.0	7,500.0	7,250.0	7,225.5	64.4	16.0	-70.75	506.5	170.8	2,989.9	2,917.0	72.91	41.008	
10,906.2	7,500.0	7,250.0	7,225.5	66.2	16.0	-71.91	506.5	170.8	3,091.8	3,017.1	74.74	41.367	
11,000.0	7,500.0	7,250.0	7,225.5	67.7	16.0	-71.91	506.5	170.8	3,181.8	3,105.5	76.28	41.712	
11,100.0	7,500.0	7,250.0	7,225.5	69.4	16.0	-71.91	506.5	170.8	3,278.0	3,200.1	77.93	42.066	
11,200.0	7,500.0	7,250.0	7,225.5	71.0	16.0	-71.91	506.5	170.8	3,374.4	3,294.8	79.57	42.407	
11,256.2	7,500.0	7,250.0	7,225.5	72.0	16.0	-71.91	506.5	170.8	3,428.7	3,348.2	80.50	42.593	
11,300.0	7,500.0	7,250.0	7,225.5	72.7	16.0	-71.38	506.5	170.8	3,471.0	3,389.9	81.15	42.775	
11,400.0	7,500.0	7,250.0	7,225.5	74.4	16.0	-70.02	506.5	170.8	3,568.2	3,485.7	82.49	43.254	
11,500.0	7,500.0	7,250.0	7,225.5	76.1	16.0	-68.40	506.5	170.8	3,665.9	3,582.3	83.61	43.844	
11,600.0	7,500.0	7,250.0	7,225.5	77.8	16.0	-66.45	506.5	170.8	3,764.0	3,679.6	84.41	44.590	
11,700.0	7,500.0	7,250.0	7,225.5	79.5	16.0	-64.06	506.5	170.8	3,862.5	3,777.7	84.77	45.567	
11,800.0	7,500.0	7,250.0	7,225.5	81.2	16.0	-61.08	506.5	170.8	3,961.3	3,876.9	84.46	46.900	
11,900.0	7,500.0	7,250.0	7,225.5	82.9	16.0	-57.29	506.5	170.8	4,060.4	3,977.3	83.17	48.821	
12,000.0	7,500.0	7,250.0	7,225.5	84.7	16.0	-52.37	506.5	170.8	4,159.7	4,079.4	80.33	51.781	
12,100.0	7,500.0	7,250.0	7,225.5	86.4	16.0	-45.87	506.5	170.8	4,259.2	4,184.2	75.05	56.753	
12,169.2	7,500.0	7,250.0	7,225.5	87.6	16.0	-40.12	506.5	170.8	4,328.2	4,258.9	69.25	62.497	
12,200.0	7,500.0	7,250.0	7,225.5	88.1	16.0	-40.12	506.5	170.8	4,358.9	4,289.3	69.60	62.626	
12,300.0	7,500.0	7,250.0	7,225.5	89.8	16.0	-40.12	506.5	170.8	4,458.5	4,387.8	70.73	63.039	
12,400.0	7,500.0	7,250.0	7,225.5	91.6	16.0	-40.12	506.5	170.8	4,558.2	4,486.4	71.85	63.438	
12,500.0	7,500.0	7,250.0	7,225.5	93.3	16.0	-40.12	506.5	170.8	4,657.9	4,584.9	72.98	63.824	
12,600.0	7,500.0	7,250.0	7,225.5	95.0	16.0	-40.12	506.5	170.8	4,757.6	4,683.5	74.11	64.199	
12,700.0	7,500.0	7,250.0	7,225.5	96.8	16.0	-40.12	506.5	170.8	4,857.3	4,782.1	75.24	64.562	
12,800.0	7,500.0	7,250.0	7,225.5	98.5	16.0	-40.12	506.5	170.8	4,957.1	4,880.7	76.36	64.914	
12,900.0	7,500.0	7,227.0	7,202.6	100.2	16.0	-37.98	508.4	169.9	5,056.3	4,981.8	74.48	67.889	
13,000.0	7,500.0	7,226.4	7,202.0	102.0	16.0	-37.93	508.4	169.9	5,156.0	5,080.6	75.48	68.309	
13,100.0	7,500.0	7,225.8	7,201.4	103.7	16.0	-37.88	508.5	169.9	5,255.8	5,179.3	76.48	68.718	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2D-7H-E168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	-89.70	0.4	-70.0	70.0					
100.0	100.0	100.0	100.0	0.2	0.2	-89.70	0.4	-70.0	70.0	69.7	0.30	230.404		
200.0	200.0	200.0	200.0	0.3	0.3	-89.70	0.4	-70.0	70.0	69.3	0.65	107.193		
300.0	300.0	300.0	300.0	0.5	0.5	-89.70	0.4	-70.0	70.0	69.0	1.00	69.844		
400.0	400.0	400.0	400.0	0.7	0.7	-89.70	0.4	-70.0	70.0	68.6	1.35	51.796		
500.0	500.0	500.0	500.0	0.8	0.8	-89.70	0.4	-70.0	70.0	68.3	1.70	41.160 CC		
600.0	600.0	600.8	600.8	1.0	1.0	174.54	1.0	-69.4	70.3	68.2	2.05	34.279 ES		
700.0	700.0	701.5	701.5	1.2	1.2	176.41	3.1	-67.7	71.3	68.9	2.40	29.675		
800.0	799.9	802.1	802.0	1.4	1.4	179.41	6.5	-64.9	73.1	70.4	2.76	26.514		
900.0	899.7	902.7	902.3	1.6	1.6	-176.66	11.3	-61.0	76.0	72.9	3.12	24.352		
1,000.0	999.4	1,003.0	1,002.4	1.8	1.8	-172.06	17.4	-55.9	80.2	76.7	3.50	22.931		
1,026.5	1,025.7	1,029.5	1,028.8	1.8	1.8	-170.77	19.2	-54.4	81.5	77.9	3.60	22.648		
1,100.0	1,098.9	1,103.2	1,102.1	2.0	2.0	-167.03	24.8	-49.8	85.4	81.5	3.89	21.942		
1,200.0	1,198.5	1,203.1	1,201.4	2.2	2.2	-161.57	33.6	-42.6	90.8	86.5	4.32	21.042		
1,300.0	1,298.1	1,302.6	1,300.1	2.4	2.5	-156.30	43.0	-34.9	96.9	92.1	4.76	20.356		
1,400.0	1,397.7	1,402.0	1,398.8	2.7	2.7	-151.68	52.4	-27.1	103.6	98.4	5.21	19.878		
1,500.0	1,497.3	1,501.5	1,497.5	2.9	3.0	-147.64	61.7	-19.4	110.9	105.2	5.67	19.552		
1,600.0	1,596.8	1,600.9	1,596.2	3.1	3.3	-144.11	71.1	-11.7	118.7	112.6	6.14	19.335		
1,700.0	1,696.4	1,700.3	1,694.9	3.3	3.5	-141.03	80.5	-4.0	126.9	120.3	6.61	19.197		
1,800.0	1,796.0	1,799.8	1,793.6	3.6	3.8	-138.33	89.9	3.7	135.4	128.4	7.08	19.117		
1,900.0	1,895.6	1,899.2	1,892.3	3.8	4.0	-135.95	99.2	11.5	144.2	136.7	7.56	19.079		
2,000.0	1,995.2	1,998.7	1,991.0	4.0	4.3	-133.84	108.6	19.2	153.2	145.2	8.03	19.072		
2,100.0	2,094.7	2,098.1	2,089.7	4.3	4.6	-131.97	118.0	26.9	162.4	153.9	8.51	19.086		
2,200.0	2,194.3	2,197.6	2,188.4	4.5	4.8	-130.31	127.3	34.6	171.8	162.8	8.99	19.116		
2,300.0	2,293.9	2,297.0	2,287.1	4.7	5.1	-128.81	136.7	42.3	181.2	171.8	9.46	19.158		
2,400.0	2,393.5	2,396.5	2,385.8	5.0	5.4	-127.47	146.1	50.1	190.8	180.9	9.93	19.207		
2,500.0	2,493.0	2,495.9	2,484.5	5.2	5.6	-126.25	155.5	57.8	200.5	190.1	10.41	19.262		
2,600.0	2,592.6	2,595.3	2,583.2	5.4	5.9	-125.14	164.8	65.5	210.3	199.4	10.88	19.320		
2,700.0	2,692.2	2,694.8	2,681.9	5.7	6.2	-124.14	174.2	73.2	220.1	208.7	11.36	19.380		
2,800.0	2,791.8	2,794.2	2,780.6	5.9	6.5	-123.22	183.6	80.9	230.0	218.1	11.83	19.441		
2,900.0	2,891.4	2,893.7	2,879.3	6.1	6.7	-122.37	192.9	88.7	239.9	227.6	12.30	19.503		
3,000.0	2,990.9	2,993.1	2,978.0	6.4	7.0	-121.60	202.3	96.4	249.9	237.1	12.77	19.564		
3,100.0	3,090.5	3,092.6	3,076.7	6.6	7.3	-120.88	211.7	104.1	259.9	246.7	13.25	19.625		
3,200.0	3,190.1	3,192.0	3,175.4	6.8	7.5	-120.22	221.1	111.8	270.0	256.3	13.72	19.684		
3,300.0	3,289.7	3,291.5	3,274.1	7.1	7.8	-119.60	230.4	119.5	280.1	265.9	14.19	19.743		
3,400.0	3,389.2	3,390.9	3,372.8	7.3	8.1	-119.03	239.8	127.2	290.3	275.6	14.66	19.800		
3,500.0	3,488.8	3,490.3	3,471.5	7.6	8.4	-118.49	249.2	135.0	300.4	285.3	15.13	19.856		
3,600.0	3,588.4	3,589.8	3,570.2	7.8	8.6	-117.99	258.5	142.7	310.6	295.0	15.60	19.910		
3,700.0	3,688.0	3,689.2	3,668.9	8.0	8.9	-117.52	267.9	150.4	320.8	304.7	16.07	19.962		
3,800.0	3,787.6	3,788.7	3,767.6	8.3	9.2	-117.09	277.3	158.1	331.0	314.5	16.54	20.014		
3,900.0	3,887.1	3,888.1	3,866.3	8.5	9.4	-116.67	286.7	165.8	341.3	324.3	17.01	20.063		
4,000.0	3,986.7	3,987.6	3,965.0	8.7	9.7	-116.28	296.0	173.6	351.5	334.1	17.48	20.111		
4,100.0	4,086.3	4,087.0	4,063.7	9.0	10.0	-115.92	305.4	181.3	361.8	343.9	17.95	20.158		
4,200.0	4,185.9	4,186.5	4,162.4	9.2	10.3	-115.57	314.8	189.0	372.1	353.7	18.42	20.203		
4,300.0	4,285.4	4,285.9	4,261.1	9.4	10.5	-115.24	324.2	196.7	382.4	363.5	18.89	20.247		
4,400.0	4,385.0	4,385.3	4,359.8	9.7	10.8	-114.93	333.5	204.4	392.7	373.4	19.36	20.289		
4,500.0	4,484.6	4,484.8	4,458.5	9.9	11.1	-114.64	342.9	212.2	403.1	383.2	19.83	20.330		
4,600.0	4,584.2	4,584.2	4,557.2	10.2	11.4	-114.36	352.3	219.9	413.4	393.1	20.29	20.370		
4,700.0	4,683.8	4,683.7	4,655.9	10.4	11.6	-114.09	361.6	227.6	423.7	403.0	20.76	20.409		
4,800.0	4,783.3	4,783.1	4,754.6	10.6	11.9	-113.84	371.0	235.3	434.1	412.9	21.23	20.446		
4,900.0	4,882.9	4,882.6	4,853.3	10.9	12.2	-113.60	380.4	243.0	444.4	422.7	21.70	20.482		
5,000.0	4,982.5	4,982.0	4,952.0	11.1	12.5	-113.37	389.8	250.8	454.8	432.6	22.17	20.517		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2D-7H-E168 - HZ - Plan #2												Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink 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	
5,100.0	5,082.1	5,081.5	5,050.7	11.3	12.7	-113.15	399.1	258.5	465.2	442.6	22.64	20.551	
5,200.0	5,181.7	5,180.9	5,149.4	11.6	13.0	-112.94	408.5	266.2	475.6	452.5	23.10	20.584	
5,300.0	5,281.2	5,280.4	5,248.1	11.8	13.3	-112.74	417.9	273.9	486.0	462.4	23.57	20.616	
5,400.0	5,380.8	5,379.8	5,346.8	12.0	13.5	-112.54	427.2	281.6	496.4	472.3	24.04	20.647	
5,500.0	5,480.4	5,479.2	5,445.5	12.3	13.8	-112.36	436.6	289.4	506.8	482.3	24.51	20.678	
5,600.0	5,580.0	5,578.7	5,544.2	12.5	14.1	-112.18	446.0	297.1	517.2	492.2	24.98	20.707	
5,700.0	5,679.5	5,678.1	5,642.9	12.8	14.4	-112.01	455.4	304.8	527.6	502.1	25.44	20.735	
5,800.0	5,779.1	5,777.6	5,741.6	13.0	14.6	-111.84	464.7	312.5	538.0	512.1	25.91	20.763	
5,900.0	5,878.7	5,877.0	5,840.3	13.2	14.9	-111.69	474.1	320.2	548.4	522.0	26.38	20.790	
6,000.0	5,978.3	5,976.5	5,939.0	13.5	15.2	-111.53	483.5	327.9	558.8	532.0	26.85	20.816	
6,100.0	6,077.9	6,075.9	6,037.7	13.7	15.5	-111.39	492.8	335.7	569.3	541.9	27.31	20.841	
6,200.0	6,177.4	6,175.4	6,136.4	13.9	15.7	-111.25	502.2	343.4	579.7	551.9	27.78	20.866	
6,300.0	6,277.0	6,274.8	6,235.1	14.2	16.0	-111.11	511.6	351.1	590.1	561.9	28.25	20.890	
6,400.0	6,376.6	6,374.2	6,333.8	14.4	16.3	-110.98	521.0	358.8	600.6	571.8	28.72	20.913	
6,500.0	6,476.2	6,473.7	6,432.5	14.7	16.6	-110.85	530.3	366.5	611.0	581.8	29.18	20.936	
6,600.0	6,575.7	6,573.1	6,531.2	14.9	16.8	-110.73	539.7	374.3	621.4	591.8	29.65	20.958	
6,700.0	6,675.3	6,672.6	6,629.9	15.1	17.1	-110.61	549.1	382.0	631.9	601.8	30.12	20.980	
6,800.0	6,774.9	6,772.0	6,728.6	15.4	17.4	-110.49	558.4	389.7	642.3	611.7	30.59	21.001	
6,900.0	6,874.5	7,938.2	7,500.0	15.6	16.6	175.79	-62.7	450.0	635.0	609.1	25.97	24.453	
6,949.9	6,924.1	7,938.7	7,500.0	15.7	16.6	175.62	-63.2	450.0	587.1	561.0	26.06	22.525	
7,000.0	6,974.0	7,937.1	7,500.0	15.8	16.6	-153.52	-61.5	450.0	539.2	512.3	26.93	20.026	
7,050.0	7,023.4	7,931.0	7,500.0	15.9	16.6	-144.11	-55.5	450.0	492.3	464.4	27.87	17.665	
7,100.0	7,072.1	7,920.7	7,500.0	16.0	16.6	-142.37	-45.2	450.0	446.6	418.2	28.38	15.738	
7,150.0	7,119.7	7,906.1	7,500.0	16.2	16.6	-141.94	-30.6	450.0	402.7	374.2	28.43	14.165	
7,200.0	7,165.9	7,887.5	7,500.0	16.3	16.5	-141.26	-12.0	450.0	361.1	333.0	28.11	12.846	
7,250.0	7,210.2	7,856.6	7,499.8	16.4	16.5	-138.37	18.9	450.0	322.2	294.8	27.40	11.759	
7,300.0	7,252.5	7,814.1	7,496.9	16.5	16.4	-132.88	61.3	449.8	285.5	259.0	26.58	10.743	
7,350.0	7,292.2	7,775.6	7,491.7	16.7	16.4	-127.42	99.4	449.4	251.6	225.6	25.97	9.686	
7,400.0	7,329.2	7,739.8	7,484.5	16.8	16.4	-121.62	134.5	448.8	221.5	195.7	25.73	8.607	
7,450.0	7,363.2	7,706.0	7,475.8	17.0	16.4	-115.21	167.1	448.1	196.6	170.7	25.92	7.587	
7,500.0	7,393.8	7,673.7	7,465.6	17.3	16.5	-108.04	197.8	447.3	178.8	152.3	26.53	6.741	
7,550.0	7,421.0	7,642.4	7,454.2	17.5	16.5	-100.12	226.8	446.4	169.7	142.3	27.42	6.190	
7,573.2	7,432.3	7,628.2	7,448.4	17.7	16.5	-96.22	239.9	446.0	168.7	140.8	27.86	6.055	
7,600.0	7,444.3	7,612.0	7,441.5	17.8	16.6	-91.61	254.5	445.5	170.0	141.7	28.31	6.005 SF	
7,650.0	7,463.8	7,582.3	7,427.8	18.2	16.7	-82.88	280.8	444.4	179.0	150.1	28.90	6.194	
7,700.0	7,479.2	7,550.0	7,411.3	18.5	16.7	-73.66	308.6	443.1	194.8	165.9	28.91	6.738	
7,750.0	7,490.4	7,524.4	7,397.2	18.9	16.8	-66.41	329.9	442.0	215.2	186.8	28.40	7.576	
7,800.0	7,497.4	7,500.0	7,382.8	19.3	16.9	-59.95	349.6	440.9	238.5	211.0	27.49	8.677	
7,850.0	7,500.0	7,467.9	7,362.7	19.8	17.0	-53.24	374.5	439.3	263.2	237.1	26.10	10.084	
7,855.2	7,500.0	7,465.0	7,360.8	19.9	17.0	-52.66	376.7	439.1	265.9	239.9	25.96	10.239	
7,900.0	7,500.0	7,440.9	7,344.7	20.3	17.1	-49.82	394.6	437.9	289.7	263.9	25.76	11.246	
8,000.0	7,500.0	7,400.0	7,315.7	21.3	17.2	-45.34	423.4	435.6	350.4	324.8	25.60	13.688	
8,100.0	7,500.0	7,350.0	7,277.7	22.5	17.4	-40.48	455.6	432.6	419.1	393.9	25.17	16.650	
8,200.0	7,500.0	7,319.1	7,252.8	23.7	17.5	-37.82	473.8	430.7	493.9	468.7	25.24	19.568	
8,300.0	7,500.0	7,300.0	7,236.9	25.0	17.5	-36.30	484.4	429.5	573.5	547.9	25.61	22.393	
8,400.0	7,500.0	7,265.1	7,207.1	26.3	17.6	-33.75	502.3	427.1	656.3	630.7	25.57	25.670	
8,500.0	7,500.0	7,250.0	7,193.8	27.7	17.7	-32.74	509.5	426.1	741.9	715.9	26.01	28.521	
8,600.0	7,500.0	7,224.8	7,171.3	29.1	17.7	-31.16	520.7	424.3	829.6	803.4	26.20	31.670	
8,700.0	7,500.0	7,200.0	7,148.7	30.5	17.8	-29.73	530.7	422.6	919.1	892.7	26.38	34.838	
8,800.0	7,500.0	7,200.0	7,148.7	32.0	17.8	-29.73	530.7	422.6	1,009.9	982.7	27.17	37.167	
8,900.0	7,500.0	7,180.8	7,131.0	33.5	17.8	-28.70	537.8	421.2	1,101.7	1,074.3	27.47	40.110	
9,000.0	7,500.0	7,169.3	7,120.2	35.1	17.9	-28.12	541.8	420.3	1,194.6	1,166.7	27.95	42.743	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2D-7H-E168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink 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	
9,100.0	7,500.0	7,150.0	7,101.9	36.6	17.9	-27.18	547.9	418.9	1,288.3	1,260.1	28.22	45.650		
9,200.0	7,500.0	7,150.0	7,101.9	38.2	17.9	-27.18	547.9	418.9	1,382.6	1,353.6	28.98	47.711		
9,300.0	7,500.0	7,150.0	7,101.9	39.8	17.9	-27.18	547.9	418.9	1,477.5	1,447.8	29.74	49.685		
9,400.0	7,500.0	7,150.0	7,101.9	41.4	17.9	-27.18	547.9	418.9	1,573.1	1,542.6	30.50	51.574		
9,500.0	7,500.0	7,126.3	7,079.3	43.0	17.9	-26.12	554.6	417.1	1,668.6	1,638.0	30.59	54.544		
9,600.0	7,500.0	7,119.9	7,073.1	44.6	17.9	-25.84	556.3	416.6	1,764.7	1,733.6	31.15	56.647		
9,700.0	7,500.0	7,100.0	7,053.8	46.2	17.9	-25.03	561.0	415.1	1,861.4	1,830.1	31.34	59.404		
9,800.0	7,500.0	7,100.0	7,053.8	47.9	17.9	-25.03	561.0	415.1	1,958.0	1,926.0	32.06	61.078		
9,900.0	7,500.0	7,100.0	7,053.8	49.5	17.9	-25.03	561.0	415.1	2,055.0	2,022.2	32.78	62.683		
10,000.0	7,500.0	7,100.0	7,053.8	51.2	17.9	-25.03	561.0	415.1	2,152.2	2,118.7	33.51	64.223		
10,046.2	7,500.0	7,100.0	7,053.8	51.9	17.9	-25.03	561.0	415.1	2,197.2	2,163.3	33.85	64.913		
10,100.0	7,500.0	7,100.0	7,053.8	52.8	17.9	-27.14	561.0	415.1	2,249.6	2,213.8	35.85	62.754		
10,200.0	7,500.0	7,100.0	7,053.8	54.5	17.9	-30.97	561.0	415.1	2,347.1	2,307.5	39.64	59.207		
10,300.0	7,500.0	7,100.0	7,053.8	56.1	17.9	-34.67	561.0	415.1	2,444.7	2,401.2	43.45	56.263		
10,400.0	7,500.0	7,100.0	7,053.8	57.8	17.9	-38.19	561.0	415.1	2,542.1	2,495.0	47.19	53.868		
10,500.0	7,500.0	7,079.1	7,033.4	59.5	17.9	-40.35	565.2	413.5	2,639.1	2,589.3	49.85	52.939		
10,600.0	7,500.0	7,075.8	7,030.2	61.1	17.9	-43.27	565.8	413.3	2,736.4	2,683.2	53.16	51.472		
10,700.0	7,500.0	7,072.7	7,027.2	62.8	17.9	-46.00	566.3	413.1	2,833.5	2,777.2	56.32	50.309		
10,800.0	7,500.0	7,050.0	7,004.8	64.4	17.9	-47.46	569.8	411.3	2,930.9	2,872.4	58.47	50.123		
10,906.2	7,500.0	7,050.0	7,004.8	66.2	17.9	-50.14	569.8	411.3	3,033.7	2,972.0	61.65	49.211		
11,000.0	7,500.0	7,050.0	7,004.8	67.7	17.9	-50.14	569.8	411.3	3,124.5	3,061.6	62.89	49.679		
11,100.0	7,500.0	7,050.0	7,004.8	69.4	17.9	-50.14	569.8	411.3	3,221.5	3,157.2	64.22	50.159		
11,200.0	7,500.0	7,050.0	7,004.8	71.0	17.9	-50.14	569.8	411.3	3,318.6	3,253.1	65.56	50.621		
11,256.2	7,500.0	7,050.0	7,004.8	72.0	17.9	-50.14	569.8	411.3	3,373.3	3,307.0	66.31	50.873		
11,300.0	7,500.0	7,050.0	7,004.8	72.7	17.9	-48.91	569.8	411.3	3,416.0	3,350.0	65.97	51.784		
11,400.0	7,500.0	7,050.0	7,004.8	74.4	17.9	-45.77	569.8	411.3	3,513.7	3,449.0	64.68	54.322		
11,500.0	7,500.0	7,050.0	7,004.8	76.1	17.9	-42.12	569.8	411.3	3,611.8	3,549.3	62.56	57.738		
11,600.0	7,500.0	7,050.0	7,004.8	77.8	17.9	-37.86	569.8	411.3	3,710.3	3,650.9	59.37	62.489		
11,700.0	7,500.0	7,050.0	7,004.8	79.5	17.9	-32.88	569.8	411.3	3,808.9	3,754.0	54.92	69.357		
11,800.0	7,500.0	7,050.0	7,004.8	81.2	17.9	-27.11	569.8	411.3	3,907.8	3,858.8	49.02	79.724		
11,900.0	7,500.0	7,050.0	7,004.8	82.9	17.9	-20.50	569.8	411.3	4,006.9	3,965.2	41.72	96.053		
12,000.0	7,500.0	7,050.0	7,004.8	84.7	17.9	-13.06	569.8	411.3	4,106.1	4,072.4	33.66	121.975		
12,100.0	7,500.0	7,050.0	7,004.8	86.4	17.9	-4.95	569.8	411.3	4,205.3	4,178.2	27.11	155.128		
12,169.2	7,500.0	7,050.0	7,004.8	87.6	17.9	0.92	569.8	411.3	4,274.1	4,248.1	25.99	164.448		
12,200.0	7,500.0	7,050.0	7,004.8	88.1	17.9	0.92	569.8	411.3	4,304.7	4,278.6	26.06	165.198		
12,300.0	7,500.0	7,050.0	7,004.8	89.8	17.9	0.92	569.8	411.3	4,404.0	4,377.7	26.28	167.610		
12,400.0	7,500.0	7,050.0	7,004.8	91.6	17.9	0.92	569.8	411.3	4,503.4	4,476.9	26.49	169.987		
12,500.0	7,500.0	7,050.0	7,004.8	93.3	17.9	0.92	569.8	411.3	4,602.8	4,576.1	26.71	172.328		
12,600.0	7,500.0	7,050.0	7,004.8	95.0	17.9	0.92	569.8	411.3	4,702.2	4,675.3	26.93	174.635		
12,700.0	7,500.0	7,050.0	7,004.8	96.8	17.9	0.92	569.8	411.3	4,801.7	4,774.5	27.14	176.909		
12,800.0	7,500.0	7,050.0	7,004.8	98.5	17.9	0.92	569.8	411.3	4,901.2	4,873.8	27.36	179.150		
12,900.0	7,500.0	7,050.0	7,004.8	100.2	17.9	0.92	569.8	411.3	5,000.7	4,973.1	27.57	181.360		
13,000.0	7,500.0	7,050.0	7,004.8	102.0	17.9	0.92	569.8	411.3	5,100.2	5,072.4	27.79	183.538		
13,100.0	7,500.0	7,050.0	7,004.8	103.7	17.9	0.92	569.8	411.3	5,199.7	5,171.7	28.00	185.686		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2E-7H-E168 - HZ - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	-90.00	0.0	-59.9	59.9					
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-59.9	59.9	59.6	0.30	197.223		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-59.9	59.9	59.2	0.65	91.756		
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-59.9	59.9	58.9	1.00	59.785		
400.0	400.0	400.0	400.0	0.7	0.7	-90.00	0.0	-59.9	59.9	58.5	1.35	44.337		
500.0	500.0	500.0	500.0	0.8	0.8	-90.00	0.0	-59.9	59.9	58.2	1.70	35.233 CC		
600.0	600.0	600.0	600.0	1.0	1.0	173.69	0.0	-59.9	60.8	58.7	2.05	29.657		
700.0	700.0	700.0	700.0	1.2	1.2	173.95	0.0	-59.9	63.4	61.0	2.40	26.433		
800.0	799.9	799.9	799.9	1.4	1.4	174.33	0.0	-59.9	67.7	65.0	2.74	24.665		
900.0	899.7	899.7	899.7	1.6	1.5	174.80	0.0	-59.9	73.8	70.7	3.09	23.863		
1,000.0	999.4	999.4	999.4	1.8	1.7	175.29	0.0	-59.9	81.6	78.2	3.44	23.736		
1,026.5	1,025.7	1,026.0	1,026.0	1.8	1.8	175.45	0.0	-59.8	83.9	80.4	3.53	23.774		
1,100.0	1,098.9	1,100.1	1,100.1	2.0	1.9	176.13	0.5	-59.2	90.0	86.2	3.79	23.773		
1,200.0	1,198.5	1,201.1	1,201.0	2.2	2.1	177.54	2.2	-57.2	97.3	93.1	4.14	23.499		
1,300.0	1,298.1	1,302.1	1,302.0	2.4	2.3	179.44	5.0	-53.7	103.3	98.8	4.49	22.989		
1,400.0	1,397.7	1,403.2	1,402.9	2.7	2.4	-178.19	8.9	-48.9	108.2	103.3	4.85	22.304		
1,500.0	1,497.3	1,504.3	1,503.6	2.9	2.6	-175.34	13.9	-42.7	112.1	106.9	5.22	21.490		
1,600.0	1,596.8	1,605.2	1,604.1	3.1	2.9	-171.99	20.1	-35.1	115.2	109.6	5.60	20.587		
1,700.0	1,696.4	1,706.1	1,704.3	3.3	3.1	-168.11	27.3	-26.1	117.8	111.8	6.00	19.629		
1,800.0	1,796.0	1,806.7	1,804.0	3.6	3.3	-163.69	35.7	-15.8	119.9	113.5	6.43	18.649		
1,900.0	1,895.6	1,907.1	1,903.3	3.8	3.6	-158.71	45.1	-4.2	122.1	115.2	6.90	17.686		
2,000.0	1,995.2	2,006.4	2,001.4	4.0	3.9	-153.60	54.9	8.0	124.8	117.4	7.40	16.861		
2,100.0	2,094.7	2,105.8	2,099.5	4.3	4.1	-148.74	64.8	20.2	128.6	120.6	7.93	16.214		
2,200.0	2,194.3	2,205.1	2,197.6	4.5	4.4	-144.18	74.7	32.4	133.1	124.7	8.47	15.721		
2,300.0	2,293.9	2,304.5	2,295.7	4.7	4.7	-139.95	84.5	44.6	138.5	129.5	9.02	15.358		
2,400.0	2,393.5	2,403.8	2,393.8	5.0	5.0	-136.05	94.4	56.8	144.6	135.0	9.57	15.104		
2,500.0	2,493.0	2,503.1	2,491.9	5.2	5.3	-132.48	104.3	69.0	151.3	141.2	10.13	14.937		
2,600.0	2,592.6	2,602.5	2,590.0	5.4	5.6	-129.22	114.1	81.2	158.5	147.8	10.68	14.842		
2,700.0	2,692.2	2,701.8	2,688.1	5.7	5.9	-126.25	124.0	93.4	166.2	155.0	11.23	14.804		
2,800.0	2,791.8	2,801.2	2,786.2	5.9	6.2	-123.54	133.9	105.6	174.3	162.6	11.77	14.810		
2,900.0	2,891.4	2,900.5	2,884.3	6.1	6.5	-121.09	143.7	117.7	182.8	170.5	12.31	14.851		
3,000.0	2,990.9	2,999.9	2,982.4	6.4	6.8	-118.85	153.6	129.9	191.6	178.7	12.84	14.919		
3,100.0	3,090.5	3,099.2	3,080.5	6.6	7.2	-116.81	163.5	142.1	200.6	187.2	13.37	15.008		
3,200.0	3,190.1	3,198.6	3,178.6	6.8	7.5	-114.94	173.3	154.3	209.9	196.0	13.89	15.112		
3,300.0	3,289.7	3,297.9	3,276.7	7.1	7.8	-113.24	183.2	166.5	219.3	204.9	14.40	15.228		
3,400.0	3,389.2	3,397.3	3,374.8	7.3	8.1	-111.67	193.1	178.7	229.0	214.1	14.92	15.353		
3,500.0	3,488.8	3,496.6	3,472.9	7.6	8.4	-110.24	202.9	190.9	238.8	223.4	15.42	15.483		
3,600.0	3,588.4	3,596.0	3,571.0	7.8	8.7	-108.92	212.8	203.1	248.7	232.8	15.93	15.616		
3,700.0	3,688.0	3,695.3	3,669.1	8.0	9.0	-107.70	222.7	215.3	258.8	242.4	16.43	15.752		
3,800.0	3,787.6	3,794.7	3,767.2	8.3	9.4	-106.57	232.6	227.5	269.0	252.0	16.93	15.890		
3,900.0	3,887.1	3,894.0	3,865.3	8.5	9.7	-105.52	242.4	239.7	279.2	261.8	17.42	16.027		
4,000.0	3,986.7	3,993.3	3,963.4	8.7	10.0	-104.55	252.3	251.9	289.6	271.7	17.92	16.163		
4,100.0	4,086.3	4,092.7	4,061.5	9.0	10.3	-103.64	262.2	264.1	300.0	281.6	18.41	16.298		
4,200.0	4,185.9	4,192.0	4,159.6	9.2	10.6	-102.80	272.0	276.3	310.5	291.6	18.90	16.431		
4,300.0	4,285.4	4,291.4	4,257.7	9.4	11.0	-102.01	281.9	288.5	321.1	301.7	19.38	16.562		
4,400.0	4,385.0	4,390.7	4,355.8	9.7	11.3	-101.27	291.8	300.7	331.7	311.8	19.87	16.691		
4,500.0	4,484.6	4,490.1	4,453.9	9.9	11.6	-100.58	301.6	312.9	342.3	322.0	20.36	16.817		
4,600.0	4,584.2	4,589.4	4,552.0	10.2	11.9	-99.93	311.5	325.1	353.1	332.2	20.84	16.941		
4,700.0	4,683.8	4,688.8	4,650.1	10.4	12.2	-99.31	321.4	337.2	363.8	342.5	21.32	17.061		
4,800.0	4,783.3	4,788.1	4,748.2	10.6	12.6	-98.74	331.2	349.4	374.6	352.8	21.81	17.179		
4,900.0	4,882.9	4,887.5	4,846.3	10.9	12.9	-98.19	341.1	361.6	385.4	363.1	22.29	17.295		
5,000.0	4,982.5	4,986.8	4,944.4	11.1	13.2	-97.68	351.0	373.8	396.3	373.5	22.77	17.407		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2E-7H-E168 - HZ - Plan #3													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink 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		
5,100.0	5,082.1	5,086.2	5,042.5	11.3	13.5	-97.19	360.8	386.0	407.2	383.9	23.25	17.517		
5,200.0	5,181.7	5,185.5	5,140.6	11.6	13.8	-96.73	370.7	398.2	418.1	394.4	23.72	17.623		
5,300.0	5,281.2	5,284.9	5,238.7	11.8	14.2	-96.29	380.6	410.4	429.1	404.9	24.20	17.727		
5,400.0	5,380.8	5,384.2	5,336.8	12.0	14.5	-95.87	390.4	422.6	440.0	415.3	24.68	17.829		
5,500.0	5,480.4	5,483.5	5,434.9	12.3	14.8	-95.47	400.3	434.8	451.0	425.9	25.16	17.928		
5,600.0	5,580.0	5,582.9	5,533.0	12.5	15.1	-95.10	410.2	447.0	462.0	436.4	25.63	18.024		
5,700.0	5,679.5	5,682.2	5,631.1	12.8	15.5	-94.74	420.0	459.2	473.1	447.0	26.11	18.118		
5,800.0	5,779.1	5,781.6	5,729.2	13.0	15.8	-94.39	429.9	471.4	484.1	457.5	26.59	18.209		
5,900.0	5,878.7	5,880.9	5,827.3	13.2	16.1	-94.06	439.8	483.6	495.2	468.1	27.06	18.298		
6,000.0	5,978.3	5,980.3	5,925.4	13.5	16.4	-93.75	449.6	495.8	506.3	478.7	27.54	18.385		
6,100.0	6,077.9	6,079.6	6,023.5	13.7	16.8	-93.45	459.5	508.0	517.4	489.3	28.01	18.469		
6,200.0	6,177.4	6,179.0	6,121.6	13.9	17.1	-93.16	469.4	520.2	528.5	500.0	28.49	18.551		
6,300.0	6,277.0	6,278.3	6,219.7	14.2	17.4	-92.89	479.2	532.4	539.6	510.6	28.96	18.632		
6,400.0	6,376.6	6,377.7	6,317.8	14.4	17.7	-92.62	489.1	544.6	550.7	521.3	29.43	18.710		
6,500.0	6,476.2	6,477.0	6,415.9	14.7	18.0	-92.37	499.0	556.7	561.9	532.0	29.91	18.786		
6,600.0	6,575.7	6,576.4	6,514.0	14.9	18.4	-92.12	508.8	568.9	573.0	542.6	30.38	18.861		
6,700.0	6,675.3	6,675.7	6,612.1	15.1	18.7	-91.89	518.7	581.1	584.2	553.3	30.86	18.933		
6,800.0	6,774.9	6,775.1	6,710.2	15.4	19.0	-91.66	528.6	593.3	595.4	564.0	31.33	19.004		
6,900.0	6,874.5	6,874.4	6,808.3	15.6	19.3	-91.44	538.4	605.5	606.5	574.7	31.80	19.073		
6,949.9	6,924.1	6,924.0	6,857.2	15.7	19.5	-91.34	543.4	611.6	612.1	580.1	32.04	19.107		
7,000.0	6,974.0	6,973.9	6,906.6	15.8	19.7	-45.03	548.3	617.7	615.6	583.3	32.28	19.071		
7,050.0	7,023.4	7,023.9	6,955.9	15.9	19.8	-24.41	553.3	623.9	614.6	582.3	32.30	19.028		
7,100.0	7,072.1	7,073.5	7,004.9	16.0	20.0	-15.22	558.2	630.0	609.4	577.3	32.11	18.979		
7,150.0	7,119.7	7,122.6	7,053.3	16.2	20.1	-10.14	563.1	636.0	599.8	568.1	31.70	18.924		
7,200.0	7,165.9	7,170.5	7,100.7	16.3	20.3	-6.83	567.9	641.9	586.1	555.0	31.07	18.863		
7,250.0	7,210.2	7,810.3	7,647.2	16.4	20.2	52.47	318.5	731.1	552.5	526.1	26.44	20.901		
7,300.0	7,252.5	7,821.3	7,653.1	16.5	20.2	85.05	309.3	732.5	503.4	475.7	27.77	18.132		
7,350.0	7,292.2	7,804.8	7,644.1	16.7	20.2	100.08	323.1	730.4	454.5	425.2	29.29	15.516		
7,400.0	7,329.2	7,783.6	7,632.1	16.8	20.3	109.19	340.4	727.6	406.0	376.0	30.00	13.531		
7,450.0	7,363.2	7,760.7	7,618.5	17.0	20.3	114.79	358.4	724.5	358.0	327.8	30.14	11.876		
7,500.0	7,393.8	7,737.2	7,603.7	17.3	20.3	117.88	376.5	721.3	310.7	280.7	29.98	10.365		
7,550.0	7,421.0	7,713.2	7,587.9	17.5	20.4	118.91	394.2	718.0	264.4	234.7	29.73	8.895		
7,600.0	7,444.3	7,689.0	7,571.2	17.8	20.4	117.99	411.3	714.6	219.4	189.9	29.57	7.420		
7,650.0	7,463.8	7,664.6	7,553.6	18.2	20.4	114.95	427.9	711.1	176.4	146.7	29.68	5.944		
7,700.0	7,479.2	7,640.2	7,535.3	18.5	20.5	109.34	443.7	707.6	136.6	106.4	30.16	4.528		
7,750.0	7,490.4	7,615.6	7,516.2	18.9	20.5	100.50	458.8	704.1	102.6	71.6	30.96	3.313		
7,800.0	7,497.4	7,590.9	7,496.5	19.3	20.6	87.92	473.1	700.5	80.6	49.0	31.67	2.547		
7,827.0	7,499.3	7,577.6	7,485.5	19.6	20.6	79.71	480.5	698.5	77.2	45.4	31.72	2.433 ES, SF		
7,850.0	7,500.0	7,566.2	7,476.1	19.8	20.6	72.26	486.6	696.9	79.6	48.2	31.45	2.532		
7,855.2	7,500.0	7,563.7	7,474.0	19.9	20.6	70.55	487.9	696.5	80.8	49.5	31.35	2.578		
7,900.0	7,500.0	7,542.8	7,456.3	20.3	20.6	58.21	498.5	693.4	99.4	69.5	29.89	3.326		
8,000.0	7,500.0	7,500.0	7,418.7	21.3	20.7	38.25	518.2	687.1	170.2	144.5	25.70	6.622		
8,100.0	7,500.0	7,474.4	7,395.6	22.5	20.7	29.97	528.5	683.4	255.0	231.2	23.79	10.718		
8,200.0	7,500.0	7,450.0	7,373.2	23.7	20.7	24.03	537.4	679.8	345.1	322.7	22.42	15.390		
8,300.0	7,500.0	7,430.8	7,355.3	25.0	20.7	20.36	543.7	677.0	437.7	416.0	21.71	20.161		
8,400.0	7,500.0	7,414.6	7,340.1	26.3	20.7	17.78	548.6	674.7	532.0	510.7	21.32	24.955		
8,500.0	7,500.0	7,400.0	7,326.1	27.7	20.7	15.78	552.6	672.5	627.4	606.3	21.08	29.756		
8,600.0	7,500.0	7,400.0	7,326.1	29.1	20.7	15.78	552.6	672.5	723.7	702.2	21.52	33.625		
8,700.0	7,500.0	7,379.5	7,306.4	30.5	20.7	13.41	557.6	669.6	820.3	799.2	21.09	38.894		
8,800.0	7,500.0	7,370.8	7,298.0	32.0	20.7	12.53	559.5	668.4	917.5	896.4	21.17	43.340		
8,900.0	7,500.0	7,350.0	7,277.9	33.5	20.7	10.69	563.6	665.4	1,015.4	994.5	20.89	48.610		
9,000.0	7,500.0	7,350.0	7,277.9	35.1	20.7	10.69	563.6	665.4	1,113.1	1,091.8	21.24	52.399		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2E-7H-E168 - HZ - Plan #3													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink 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		
9,100.0	7,500.0	7,350.0	7,277.9	36.6	20.7	10.69	563.6	665.4	1,211.2	1,189.6	21.60	56.078		
9,200.0	7,500.0	7,350.0	7,277.9	38.2	20.7	10.69	563.6	665.4	1,309.5	1,287.6	21.95	59.647		
9,300.0	7,500.0	7,350.0	7,277.9	39.8	20.7	10.69	563.6	665.4	1,408.2	1,385.8	22.31	63.110		
9,400.0	7,500.0	7,350.0	7,277.9	41.4	20.7	10.69	563.6	665.4	1,506.9	1,484.3	22.67	66.468		
9,500.0	7,500.0	7,350.0	7,277.9	43.0	20.7	10.69	563.6	665.4	1,605.9	1,582.8	23.03	69.726		
9,600.0	7,500.0	7,328.2	7,256.6	44.6	20.6	9.07	567.1	662.4	1,704.4	1,681.7	22.65	75.251		
9,700.0	7,500.0	7,324.9	7,253.3	46.2	20.6	8.84	567.5	661.9	1,803.4	1,780.5	22.88	78.825		
9,800.0	7,500.0	7,321.8	7,250.3	47.9	20.6	8.64	567.9	661.5	1,902.5	1,879.3	23.11	82.317		
9,900.0	7,500.0	7,300.0	7,228.8	49.5	20.6	7.34	570.3	658.5	2,002.0	1,979.2	22.85	87.632		
10,000.0	7,500.0	7,300.0	7,228.8	51.2	20.6	7.34	570.3	658.5	2,101.1	2,078.0	23.15	90.781		
10,046.2	7,500.0	7,300.0	7,228.8	51.9	20.6	7.34	570.3	658.5	2,146.9	2,123.6	23.28	92.209		
10,100.0	7,500.0	7,300.0	7,228.8	52.8	20.6	3.10	570.3	658.5	2,200.3	2,178.3	22.01	99.974		
10,200.0	7,500.0	7,300.0	7,228.8	54.5	20.6	-5.12	570.3	658.5	2,299.6	2,277.1	22.44	102.455		
10,300.0	7,500.0	7,300.0	7,228.8	56.1	20.6	-13.48	570.3	658.5	2,398.9	2,372.1	26.75	89.672		
10,400.0	7,500.0	7,300.0	7,228.8	57.8	20.6	-21.62	570.3	658.5	2,498.2	2,464.9	33.27	75.097		
10,500.0	7,500.0	7,300.0	7,228.8	59.5	20.6	-29.21	570.3	658.5	2,597.5	2,557.2	40.35	64.369		
10,600.0	7,500.0	7,300.0	7,228.8	61.1	20.6	-36.07	570.3	658.5	2,696.8	2,649.7	47.11	57.250		
10,700.0	7,500.0	7,300.0	7,228.8	62.8	20.6	-42.10	570.3	658.5	2,796.0	2,742.8	53.14	52.616		
10,800.0	7,500.0	7,300.0	7,228.8	64.4	20.6	-47.34	570.3	658.5	2,895.0	2,836.7	58.37	49.599		
10,906.2	7,500.0	7,300.0	7,228.8	66.2	20.6	-52.10	570.3	658.5	3,000.2	2,937.0	63.11	47.540		
11,000.0	7,500.0	7,300.0	7,228.8	67.7	20.6	-52.10	570.3	658.5	3,093.0	3,028.6	64.39	48.035		
11,100.0	7,500.0	7,300.0	7,228.8	69.4	20.6	-52.10	570.3	658.5	3,192.0	3,126.2	65.76	48.541		
11,200.0	7,500.0	7,300.0	7,228.8	71.0	20.6	-52.10	570.3	658.5	3,291.0	3,223.9	67.13	49.026		
11,256.2	7,500.0	7,300.0	7,228.8	72.0	20.6	-52.10	570.3	658.5	3,346.7	3,278.8	67.90	49.290		
11,300.0	7,500.0	7,300.0	7,228.8	72.7	20.6	-49.97	570.3	658.5	3,390.2	3,323.3	66.86	50.706		
11,400.0	7,500.0	7,300.0	7,228.8	74.4	20.6	-44.14	570.3	658.5	3,489.5	3,426.4	63.12	55.283		
11,500.0	7,500.0	7,300.0	7,228.8	76.1	20.6	-36.64	570.3	658.5	3,589.0	3,532.2	56.81	63.177		
11,600.0	7,500.0	7,300.0	7,228.8	77.8	20.6	-27.04	570.3	658.5	3,688.6	3,641.5	47.12	78.276		
11,700.0	7,500.0	7,300.0	7,228.8	79.5	20.6	-15.14	570.3	658.5	3,788.3	3,753.8	34.48	109.866		
11,800.0	7,500.0	7,300.0	7,228.8	81.2	20.6	-1.38	570.3	658.5	3,888.0	3,862.6	25.47	152.665		
11,900.0	7,500.0	7,300.0	7,228.8	82.9	20.6	12.88	570.3	658.5	3,987.8	3,953.8	33.97	117.394		
12,000.0	7,500.0	7,300.0	7,228.8	84.7	20.6	26.01	570.3	658.5	4,087.6	4,036.9	50.68	80.651		
12,100.0	7,500.0	7,300.0	7,228.8	86.4	20.6	37.00	570.3	658.5	4,187.3	4,121.4	65.81	63.629		
12,169.2	7,500.0	7,300.0	7,228.8	87.6	20.6	43.25	570.3	658.5	4,256.2	4,181.9	74.28	57.300		
12,200.0	7,500.0	7,300.0	7,228.8	88.1	20.6	43.25	570.3	658.5	4,286.9	4,212.2	74.65	57.429		
12,300.0	7,500.0	7,300.0	7,228.8	89.8	20.6	43.25	570.3	658.5	4,386.5	4,310.7	75.84	57.839		
12,400.0	7,500.0	7,300.0	7,228.8	91.6	20.6	43.25	570.3	658.5	4,486.2	4,409.1	77.03	58.236		
12,500.0	7,500.0	7,300.0	7,228.8	93.3	20.6	43.25	570.3	658.5	4,585.8	4,507.6	78.23	58.620		
12,600.0	7,500.0	7,300.0	7,228.8	95.0	20.6	43.25	570.3	658.5	4,685.5	4,606.1	79.43	58.992		
12,700.0	7,500.0	7,300.0	7,228.8	96.8	20.6	43.25	570.3	658.5	4,785.2	4,704.6	80.62	59.354		
12,800.0	7,500.0	7,300.0	7,228.8	98.5	20.6	43.25	570.3	658.5	4,884.9	4,803.1	81.82	59.704		
12,900.0	7,500.0	7,300.0	7,228.8	100.2	20.6	43.25	570.3	658.5	4,984.6	4,901.6	83.02	60.044		
13,000.0	7,500.0	7,300.0	7,228.8	102.0	20.6	43.25	570.3	658.5	5,084.3	5,000.1	84.21	60.375		
13,100.0	7,500.0	7,300.0	7,228.8	103.7	20.6	43.25	570.3	658.5	5,184.1	5,098.7	85.41	60.695		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2F-7H-E168 - HZ - Plan #2												Offset Site Error: 0.0 ft			
Survey Program: 0-Geolink 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	-90.00	0.0	-49.8	49.8						
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-49.8	49.8	49.5	0.30	164.045			
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-49.8	49.8	49.2	0.65	76.321			
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-49.8	49.8	48.8	1.00	49.728			
400.0	400.0	400.8	400.8	0.7	0.7	-89.58	0.4	-49.0	49.0	47.7	1.35	36.229			
500.0	500.0	501.5	501.5	0.8	0.9	-88.24	1.4	-46.6	46.6	44.9	1.71	27.311			
600.0	600.0	602.2	602.0	1.0	1.0	177.98	3.2	-42.5	43.6	41.5	2.06	21.189			
700.0	700.0	702.7	702.4	1.2	1.2	-177.79	5.7	-36.9	40.9	38.5	2.41	16.937			
800.0	799.9	803.2	802.5	1.4	1.5	-171.73	8.9	-29.6	38.8	36.0	2.78	13.943			
900.0	899.7	903.5	902.4	1.6	1.7	-163.87	12.8	-20.8	37.6	34.4	3.17	11.861			
940.6	940.1	944.2	942.8	1.7	1.8	-160.24	14.6	-16.7	37.5	34.2	3.34	11.224 CC, ES			
1,000.0	999.4	1,003.8	1,002.0	1.8	1.9	-154.61	17.5	-10.3	37.8	34.2	3.60	10.492			
1,026.5	1,025.7	1,030.3	1,028.3	1.8	2.0	-152.02	18.8	-7.3	38.1	34.4	3.72	10.228			
1,100.0	1,098.9	1,103.8	1,101.2	2.0	2.2	-144.41	22.8	1.7	39.2	35.1	4.08	9.599			
1,200.0	1,198.5	1,203.7	1,200.0	2.2	2.5	-132.94	28.8	15.2	41.4	36.8	4.62	8.947			
1,300.0	1,298.1	1,303.3	1,298.2	2.4	2.8	-120.79	35.4	30.3	45.0	39.8	5.20	8.647 SF			
1,400.0	1,397.7	1,402.6	1,395.8	2.7	3.2	-108.91	42.8	46.9	50.6	44.8	5.77	8.765			
1,500.0	1,497.3	1,501.5	1,492.7	2.9	3.5	-98.16	50.8	65.0	58.5	52.2	6.29	9.300			
1,600.0	1,596.8	1,600.6	1,589.7	3.1	3.9	-89.73	59.0	83.6	68.3	61.5	6.76	10.106			
1,700.0	1,696.4	1,699.7	1,686.7	3.3	4.3	-83.50	67.2	102.1	79.2	72.0	7.19	11.004			
1,800.0	1,796.0	1,798.8	1,783.7	3.6	4.7	-78.80	75.4	120.7	90.8	83.1	7.62	11.915			
1,900.0	1,895.6	1,897.9	1,880.7	3.8	5.0	-75.19	83.6	139.3	102.8	94.8	8.03	12.797			
2,000.0	1,995.2	1,997.0	1,977.6	4.0	5.4	-72.33	91.9	157.9	115.2	106.7	8.45	13.634			
2,100.0	2,094.7	2,096.0	2,074.6	4.3	5.8	-70.04	100.1	176.5	127.8	118.9	8.86	14.419			
2,200.0	2,194.3	2,195.1	2,171.6	4.5	6.2	-68.16	108.3	195.1	140.5	131.3	9.28	15.151			
2,300.0	2,293.9	2,294.2	2,268.6	4.7	6.6	-66.59	116.5	213.7	153.4	143.7	9.69	15.833			
2,400.0	2,393.5	2,393.3	2,365.5	5.0	7.0	-65.26	124.8	232.3	166.4	156.3	10.11	16.467			
2,500.0	2,493.0	2,492.4	2,462.5	5.2	7.4	-64.13	133.0	250.9	179.5	168.9	10.52	17.056			
2,600.0	2,592.6	2,591.5	2,559.5	5.4	7.8	-63.15	141.2	269.5	192.6	181.6	10.94	17.605			
2,700.0	2,692.2	2,690.6	2,656.5	5.7	8.2	-62.30	149.4	288.1	205.8	194.4	11.36	18.117			
2,800.0	2,791.8	2,789.6	2,753.5	5.9	8.6	-61.55	157.6	306.7	219.0	207.2	11.78	18.595			
2,900.0	2,891.4	2,888.7	2,850.4	6.1	9.0	-60.88	165.9	325.3	232.2	220.0	12.19	19.041			
3,000.0	2,990.9	2,987.8	2,947.4	6.4	9.4	-60.29	174.1	343.9	245.5	232.9	12.61	19.460			
3,100.0	3,090.5	3,086.9	3,044.4	6.6	9.8	-59.76	182.3	362.5	258.8	245.7	13.03	19.852			
3,200.0	3,190.1	3,186.0	3,141.4	6.8	10.2	-59.28	190.5	381.1	272.1	258.6	13.45	20.221			
3,300.0	3,289.7	3,285.1	3,238.3	7.1	10.6	-58.84	198.8	399.7	285.4	271.5	13.88	20.568			
3,400.0	3,389.2	3,384.2	3,335.3	7.3	11.0	-58.44	207.0	418.2	298.7	284.4	14.30	20.895			
3,500.0	3,488.8	3,483.2	3,432.3	7.6	11.4	-58.08	215.2	436.8	312.1	297.4	14.72	21.204			
3,600.0	3,588.4	3,582.3	3,529.3	7.8	11.8	-57.75	223.4	455.4	325.5	310.3	15.14	21.497			
3,700.0	3,688.0	3,681.4	3,626.3	8.0	12.2	-57.44	231.7	474.0	338.8	323.3	15.56	21.773			
3,800.0	3,787.6	3,780.5	3,723.2	8.3	12.5	-57.16	239.9	492.6	352.2	336.2	15.98	22.035			
3,900.0	3,887.1	3,879.6	3,820.2	8.5	12.9	-56.89	248.1	511.2	365.6	349.2	16.41	22.284			
4,000.0	3,986.7	3,978.7	3,917.2	8.7	13.3	-56.65	256.3	529.8	379.0	362.2	16.83	22.521			
4,100.0	4,086.3	4,077.8	4,014.2	9.0	13.7	-56.42	264.5	548.4	392.4	375.2	17.25	22.746			
4,200.0	4,185.9	4,176.8	4,111.1	9.2	14.1	-56.21	272.8	567.0	405.8	388.1	17.67	22.961			
4,300.0	4,285.4	4,275.9	4,208.1	9.4	14.5	-56.01	281.0	585.6	419.2	401.1	18.10	23.165			
4,400.0	4,385.0	4,375.0	4,305.1	9.7	14.9	-55.82	289.2	604.2	432.7	414.1	18.52	23.360			
4,500.0	4,484.6	4,474.1	4,402.1	9.9	15.3	-55.65	297.4	622.8	446.1	427.1	18.94	23.547			
4,600.0	4,584.2	4,573.2	4,499.1	10.2	15.7	-55.48	305.7	641.4	459.5	440.1	19.37	23.726			
4,700.0	4,683.8	4,672.3	4,596.0	10.4	16.1	-55.33	313.9	660.0	472.9	453.1	19.79	23.897			
4,800.0	4,783.3	4,771.4	4,693.0	10.6	16.5	-55.18	322.1	678.6	486.4	466.2	20.21	24.061			
4,900.0	4,882.9	4,870.4	4,790.0	10.9	16.9	-55.04	330.3	697.2	499.8	479.2	20.64	24.218			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2F-7H-E168 - HZ - Plan #2											Offset Site Error: 0.0 ft		
Survey Program: O-Geolink 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	
5,000.0	4,982.5	4,969.5	4,887.0	11.1	17.3	-54.91	338.5	715.7	513.3	492.2	21.06	24.369	
5,100.0	5,082.1	5,068.6	4,983.9	11.3	17.7	-54.78	346.8	734.3	526.7	505.2	21.49	24.514	
5,200.0	5,181.7	5,167.7	5,080.9	11.6	18.1	-54.67	355.0	752.9	540.1	518.2	21.91	24.653	
5,300.0	5,281.2	5,266.8	5,177.9	11.8	18.5	-54.55	363.2	771.5	553.6	531.3	22.33	24.787	
5,400.0	5,380.8	5,365.9	5,274.9	12.0	18.9	-54.44	371.4	790.1	567.0	544.3	22.76	24.916	
5,500.0	5,480.4	5,465.0	5,371.9	12.3	19.3	-54.34	379.7	808.7	580.5	557.3	23.18	25.041	
5,600.0	5,580.0	5,564.0	5,468.8	12.5	19.7	-54.24	387.9	827.3	593.9	570.3	23.61	25.161	
5,700.0	5,679.5	5,663.1	5,565.8	12.8	20.1	-54.15	396.1	845.9	607.4	583.4	24.03	25.276	
5,800.0	5,779.1	5,762.2	5,662.8	13.0	20.5	-54.06	404.3	864.5	620.9	596.4	24.45	25.388	
5,900.0	5,878.7	5,861.3	5,759.8	13.2	20.9	-53.97	412.5	883.1	634.3	609.4	24.88	25.496	
6,000.0	5,978.3	5,960.4	5,856.7	13.5	21.3	-53.89	420.8	901.7	647.8	622.5	25.30	25.600	
6,100.0	6,077.9	6,059.5	5,953.7	13.7	21.7	-53.81	429.0	920.3	661.2	635.5	25.73	25.701	
6,200.0	6,177.4	6,158.6	6,050.7	13.9	22.1	-53.74	437.2	938.9	674.7	648.6	26.15	25.799	
6,300.0	6,277.0	6,257.6	6,147.7	14.2	22.5	-53.66	445.4	957.5	688.2	661.6	26.58	25.893	
6,400.0	6,376.6	6,356.7	6,244.6	14.4	22.9	-53.59	453.7	976.1	701.6	674.6	27.00	25.985	
6,500.0	6,476.2	6,455.8	6,341.6	14.7	23.3	-53.53	461.9	994.7	715.1	687.7	27.43	26.074	
6,600.0	6,575.7	6,554.9	6,438.6	14.9	23.7	-53.46	470.1	1,013.3	728.6	700.7	27.85	26.160	
6,700.0	6,675.3	6,654.0	6,535.6	15.1	24.1	-53.40	478.3	1,031.8	742.0	713.8	28.28	26.243	
6,800.0	6,774.9	6,753.1	6,632.6	15.4	24.5	-53.34	486.6	1,050.4	755.5	726.8	28.70	26.324	
6,900.0	6,874.5	6,852.2	6,729.5	15.6	24.9	-53.28	494.8	1,069.0	769.0	739.8	29.12	26.403	
6,949.9	6,924.1	6,901.6	6,777.9	15.7	25.1	-53.25	498.9	1,078.3	775.7	746.4	29.34	26.441	
7,000.0	6,974.0	6,951.4	6,826.7	15.8	25.3	-7.25	503.0	1,087.7	780.8	751.2	29.59	26.387	
7,050.0	7,023.4	7,001.1	6,875.3	15.9	25.5	13.43	507.1	1,097.0	782.8	753.2	29.55	26.488	
7,100.0	7,072.1	7,049.7	6,933.4	16.0	26.3	55.81	207.8	1,204.0	765.8	739.6	26.27	29.157	
7,150.0	7,119.7	7,146.9	7,460.0	16.2	26.3	70.36	149.6	1,209.1	735.5	709.4	26.08	28.203	
7,200.0	7,165.9	7,745.9	7,459.6	16.3	26.3	76.64	150.6	1,209.0	707.0	680.7	26.27	26.909	
7,250.0	7,210.2	7,732.0	7,454.4	16.4	26.3	80.29	163.4	1,208.0	680.8	654.3	26.51	25.681	
7,300.0	7,252.5	7,713.4	7,446.9	16.5	26.3	82.53	180.4	1,206.6	657.3	630.5	26.74	24.580	
7,350.0	7,292.2	7,692.6	7,437.9	16.7	26.3	83.80	199.1	1,204.9	636.7	609.7	26.96	23.616	
7,400.0	7,329.2	7,670.6	7,427.6	16.8	26.3	84.33	218.5	1,202.9	619.2	592.1	27.17	22.788	
7,450.0	7,363.2	7,647.7	7,416.3	17.0	26.3	84.26	238.2	1,200.7	605.1	577.7	27.38	22.098	
7,500.0	7,393.8	7,624.5	7,403.9	17.3	26.3	83.67	257.7	1,198.3	594.3	566.7	27.60	21.528	
7,550.0	7,421.0	7,600.8	7,390.5	17.5	26.3	82.62	277.0	1,195.8	586.9	559.0	27.84	21.076	
7,600.0	7,444.3	7,577.0	7,376.2	17.8	26.3	81.17	296.0	1,193.0	582.7	554.6	28.12	20.722	
7,640.9	7,460.6	7,557.3	7,363.9	18.1	26.3	79.72	311.1	1,190.7	581.7	553.3	28.38	20.499	
7,650.0	7,463.8	7,552.9	7,361.1	18.2	26.3	79.37	314.4	1,190.1	581.8	553.3	28.44	20.459	
7,700.0	7,479.2	7,528.8	7,345.1	18.5	26.3	77.26	332.2	1,187.1	583.7	554.9	28.80	20.267	
7,750.0	7,490.4	7,504.5	7,328.3	18.9	26.3	74.90	349.5	1,183.8	588.3	559.1	29.23	20.129	
7,800.0	7,497.4	7,480.2	7,310.8	19.3	26.3	72.33	366.0	1,180.5	595.2	565.5	29.73	20.023	
7,850.0	7,500.0	7,455.8	7,292.5	19.8	26.3	69.61	381.8	1,177.0	604.1	573.8	30.32	19.925	
7,855.2	7,500.0	7,450.0	7,288.1	19.9	26.3	69.08	385.4	1,176.1	605.1	574.8	30.37	19.925	
7,900.0	7,500.0	7,432.4	7,274.4	20.3	26.3	67.76	396.2	1,173.5	615.1	584.4	30.75	20.006	
8,000.0	7,500.0	7,400.0	7,248.4	21.3	26.3	65.28	414.9	1,168.5	645.3	613.7	31.61	20.413	
8,100.0	7,500.0	7,350.0	7,206.4	22.5	26.3	61.38	440.7	1,160.5	685.9	653.7	32.23	21.284	
8,200.0	7,500.0	7,331.8	7,190.5	23.7	26.3	59.95	449.1	1,157.4	735.8	702.7	33.15	22.194	
8,300.0	7,500.0	7,300.0	7,162.3	25.0	26.2	57.47	462.6	1,152.0	794.0	760.1	33.85	23.459	
8,400.0	7,500.0	7,300.0	7,162.3	26.3	26.2	57.47	462.6	1,152.0	858.8	823.8	35.07	24.491	
8,500.0	7,500.0	7,272.5	7,137.2	27.7	26.2	55.34	473.0	1,147.2	929.0	893.2	35.75	25.984	
8,600.0	7,500.0	7,250.0	7,116.5	29.1	26.2	53.62	480.6	1,143.2	1,003.9	967.4	36.49	27.513	
8,700.0	7,500.0	7,250.0	7,116.5	30.5	26.2	53.62	480.6	1,143.2	1,082.3	1,044.5	37.73	28.687	
8,800.0	7,500.0	7,250.0	7,116.5	32.0	26.2	53.62	480.6	1,143.2	1,164.0	1,125.0	38.99	29.857	
8,900.0	7,500.0	7,224.2	7,092.3	33.5	26.1	51.68	488.2	1,138.6	1,247.6	1,208.1	39.54	31.553	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2F-7H-E168 - HZ - Plan #2											Offset Site Error: 0.0 ft		
Survey Program: 0-Geolink 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	
9,000.0	7,500.0	7,200.0	7,069.3	35.1	26.1	49.89	494.4	1,134.2	1,333.8	1,293.8	40.07	33.288	
9,100.0	7,500.0	7,200.0	7,069.3	36.6	26.1	49.89	494.4	1,134.2	1,421.2	1,379.9	41.30	34.410	
9,200.0	7,500.0	7,200.0	7,069.3	38.2	26.1	49.89	494.4	1,134.2	1,510.2	1,467.7	42.55	35.496	
9,300.0	7,500.0	7,200.0	7,069.3	39.8	26.1	49.89	494.4	1,134.2	1,600.5	1,556.7	43.80	36.542	
9,400.0	7,500.0	7,200.0	7,069.3	41.4	26.1	49.89	494.4	1,134.2	1,691.9	1,646.8	45.06	37.548	
9,500.0	7,500.0	7,200.0	7,069.3	43.0	26.1	49.89	494.4	1,134.2	1,784.2	1,737.8	46.33	38.513	
9,600.0	7,500.0	7,177.7	7,047.9	44.6	26.1	48.29	499.2	1,130.1	1,876.7	1,830.0	46.73	40.162	
9,700.0	7,500.0	7,173.2	7,043.6	46.2	26.0	47.97	500.1	1,129.2	1,970.2	1,922.4	47.79	41.225	
9,800.0	7,500.0	7,150.0	7,021.1	47.9	26.0	46.35	504.0	1,124.9	2,064.7	2,016.7	48.06	42.961	
9,900.0	7,500.0	7,150.0	7,021.1	49.5	26.0	46.35	504.0	1,124.9	2,159.2	2,109.9	49.28	43.815	
10,000.0	7,500.0	7,150.0	7,021.1	51.2	26.0	46.35	504.0	1,124.9	2,254.1	2,203.6	50.50	44.635	
10,046.2	7,500.0	7,150.0	7,021.1	51.9	26.0	46.35	504.0	1,124.9	2,298.1	2,247.0	51.07	45.002	
10,100.0	7,500.0	7,150.0	7,021.1	52.8	26.0	45.14	504.0	1,124.9	2,349.5	2,298.7	50.77	46.280	
10,200.0	7,500.0	7,150.0	7,021.1	54.5	26.0	42.64	504.0	1,124.9	2,445.6	2,395.6	49.94	48.971	
10,300.0	7,500.0	7,150.0	7,021.1	56.1	26.0	39.79	504.0	1,124.9	2,542.2	2,493.5	48.70	52.204	
10,400.0	7,500.0	7,150.0	7,021.1	57.8	26.0	36.54	504.0	1,124.9	2,639.4	2,592.5	46.97	56.199	
10,500.0	7,500.0	7,150.0	7,021.1	59.5	26.0	32.84	504.0	1,124.9	2,737.0	2,692.4	44.66	61.289	
10,600.0	7,500.0	7,150.0	7,021.1	61.1	26.0	28.64	504.0	1,124.9	2,835.0	2,793.3	41.70	67.980	
10,700.0	7,500.0	7,150.0	7,021.1	62.8	26.0	23.88	504.0	1,124.9	2,933.3	2,895.2	38.07	77.044	
10,800.0	7,500.0	7,150.0	7,021.1	64.4	26.0	18.56	504.0	1,124.9	3,031.8	2,997.9	33.85	89.567	
10,906.2	7,500.0	7,150.0	7,021.1	66.2	26.0	12.29	504.0	1,124.9	3,136.6	3,107.5	29.10	107.795	
11,000.0	7,500.0	7,150.0	7,021.1	67.7	26.0	12.29	504.0	1,124.9	3,229.3	3,199.8	29.48	109.557	
11,100.0	7,500.0	7,150.0	7,021.1	69.4	26.0	12.29	504.0	1,124.9	3,328.2	3,298.3	29.88	111.385	
11,200.0	7,500.0	7,150.0	7,021.1	71.0	26.0	12.29	504.0	1,124.9	3,427.1	3,396.8	30.28	113.165	
11,256.2	7,500.0	7,128.5	7,000.1	72.0	25.9	11.40	506.8	1,120.9	3,482.3	3,452.5	29.74	117.073	
11,300.0	7,500.0	7,127.6	6,999.3	72.7	25.9	14.24	506.9	1,120.8	3,525.6	3,493.2	32.43	108.723	
11,400.0	7,500.0	7,125.8	6,997.5	74.4	25.9	20.56	507.1	1,120.4	3,624.5	3,585.2	39.36	92.093	
11,500.0	7,500.0	7,124.1	6,995.9	76.1	25.9	26.52	507.3	1,120.1	3,723.4	3,676.7	46.70	79.731	
11,600.0	7,500.0	7,122.5	6,994.3	77.8	25.9	32.03	507.5	1,119.8	3,822.2	3,768.3	53.92	70.891	
11,700.0	7,500.0	7,100.0	6,972.3	79.5	25.9	35.69	509.3	1,115.6	3,921.4	3,862.2	59.19	66.251	
11,800.0	7,500.0	7,100.0	6,972.3	81.2	25.9	40.29	509.3	1,115.6	4,019.9	3,954.3	65.61	61.269	
11,900.0	7,500.0	7,100.0	6,972.3	82.9	25.9	44.43	509.3	1,115.6	4,118.4	4,046.9	71.51	57.593	
12,000.0	7,500.0	7,100.0	6,972.3	84.7	25.9	48.13	509.3	1,115.6	4,216.7	4,139.8	76.89	54.842	
12,100.0	7,500.0	7,100.0	6,972.3	86.4	25.9	51.43	509.3	1,115.6	4,314.8	4,233.0	81.79	52.756	
12,169.2	7,500.0	7,100.0	6,972.3	87.6	25.9	53.50	509.3	1,115.6	4,382.6	4,297.7	84.93	51.605	
12,200.0	7,500.0	7,100.0	6,972.3	88.1	25.9	53.50	509.3	1,115.6	4,412.8	4,327.4	85.36	51.699	
12,300.0	7,500.0	7,100.0	6,972.3	89.8	25.9	53.50	509.3	1,115.6	4,510.8	4,424.0	86.75	51.995	
12,400.0	7,500.0	7,100.0	6,972.3	91.6	25.9	53.50	509.3	1,115.6	4,608.9	4,520.7	88.15	52.283	
12,500.0	7,500.0	7,100.0	6,972.3	93.3	25.9	53.50	509.3	1,115.6	4,707.1	4,617.5	89.55	52.563	
12,600.0	7,500.0	7,100.0	6,972.3	95.0	25.9	53.50	509.3	1,115.6	4,805.3	4,714.3	90.95	52.834	
12,700.0	7,500.0	7,100.0	6,972.3	96.8	25.9	53.50	509.3	1,115.6	4,903.6	4,811.3	92.35	53.098	
12,800.0	7,500.0	7,100.0	6,972.3	98.5	25.9	53.50	509.3	1,115.6	5,002.0	4,908.2	93.75	53.354	
12,900.0	7,500.0	7,100.0	6,972.3	100.2	25.9	53.50	509.3	1,115.6	5,100.4	5,005.3	95.15	53.603	
13,000.0	7,500.0	7,100.0	6,972.3	102.0	25.9	53.50	509.3	1,115.6	5,198.9	5,102.4	96.55	53.845	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2G-7H-E168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	-89.99	0.0	-40.0	40.0					
100.0	100.0	100.0	100.0	0.2	0.2	-89.99	0.0	-40.0	40.0	39.7	0.30	131.789		
200.0	200.0	200.0	200.0	0.3	0.3	-89.99	0.0	-40.0	40.0	39.4	0.65	61.314		
300.0	300.0	300.7	300.6	0.5	0.5	-89.57	0.3	-39.2	39.2	38.2	1.00	39.042		
400.0	400.0	401.2	401.2	0.7	0.7	-88.20	1.2	-36.7	36.7	35.4	1.36	27.020		
500.0	500.0	501.7	501.6	0.8	0.9	-85.44	2.6	-32.5	32.7	30.9	1.72	18.973		
600.0	600.0	602.0	601.7	1.0	1.1	-176.73	4.6	-26.7	28.0	25.9	2.06	13.576		
700.0	700.0	702.3	701.6	1.2	1.3	-167.99	7.2	-19.2	24.0	21.5	2.43	9.849		
800.0	799.9	802.4	801.3	1.4	1.5	-154.47	10.3	-10.1	21.2	18.3	2.84	7.450		
878.1	877.8	880.4	878.8	1.5	1.7	-140.90	13.2	-1.9	20.4	17.2	3.20	6.369 CC		
900.0	899.7	902.4	900.6	1.6	1.8	-136.84	14.0	0.6	20.5	17.1	3.31	6.186 ES		
1,000.0	999.4	1,002.2	999.6	1.8	2.1	-119.10	18.3	13.0	22.4	18.6	3.82	5.883 SF		
1,026.5	1,025.7	1,028.6	1,025.7	1.8	2.1	-114.97	19.5	16.5	23.4	19.5	3.95	5.922		
1,100.0	1,098.9	1,101.9	1,098.1	2.0	2.3	-104.29	23.1	26.9	26.8	22.5	4.32	6.201		
1,200.0	1,198.5	1,201.3	1,196.2	2.2	2.7	-91.43	28.4	42.5	33.1	28.3	4.80	6.898		
1,300.0	1,298.1	1,300.4	1,293.6	2.4	3.0	-80.94	34.3	59.6	41.4	36.2	5.23	7.926		
1,400.0	1,397.7	1,399.1	1,390.4	2.7	3.4	-72.70	40.7	78.2	51.9	46.2	5.63	9.214		
1,500.0	1,497.3	1,497.4	1,486.4	2.9	3.8	-66.28	47.7	98.3	64.3	58.3	6.01	10.696		
1,600.0	1,596.8	1,595.5	1,581.8	3.1	4.2	-61.21	55.1	119.9	78.6	72.2	6.38	12.322		
1,700.0	1,696.4	1,693.9	1,677.2	3.3	4.7	-57.44	62.8	142.3	94.0	87.3	6.74	13.945		
1,800.0	1,796.0	1,792.5	1,772.9	3.6	5.1	-54.72	70.6	164.8	109.8	102.7	7.12	15.424		
1,900.0	1,895.6	1,891.1	1,868.7	3.8	5.5	-52.69	78.3	187.3	125.7	118.2	7.50	16.768		
2,000.0	1,995.2	1,989.8	1,964.4	4.0	6.0	-51.11	86.1	209.8	141.7	133.9	7.88	17.989		
2,100.0	2,094.7	2,088.4	2,060.1	4.3	6.4	-49.86	93.8	232.2	157.9	149.6	8.27	19.099		
2,200.0	2,194.3	2,187.1	2,155.8	4.5	6.9	-48.84	101.6	254.7	174.1	165.4	8.66	20.111		
2,300.0	2,293.9	2,285.7	2,251.6	4.7	7.3	-47.99	109.3	277.2	190.3	181.3	9.05	21.037		
2,400.0	2,393.5	2,384.3	2,347.3	5.0	7.8	-47.27	117.1	299.7	206.6	197.1	9.44	21.887		
2,500.0	2,493.0	2,483.0	2,443.0	5.2	8.2	-46.66	124.8	322.2	222.9	213.0	9.83	22.669		
2,600.0	2,592.6	2,581.6	2,538.7	5.4	8.7	-46.14	132.6	344.7	239.2	228.9	10.23	23.390		
2,700.0	2,692.2	2,680.2	2,634.5	5.7	9.2	-45.68	140.3	367.2	255.5	244.9	10.62	24.059		
2,800.0	2,791.8	2,778.9	2,730.2	5.9	9.6	-45.27	148.1	389.7	271.9	260.8	11.02	24.678		
2,900.0	2,891.4	2,877.5	2,825.9	6.1	10.1	-44.91	155.8	412.2	288.2	276.8	11.41	25.255		
3,000.0	2,990.9	2,976.2	2,921.6	6.4	10.5	-44.59	163.6	434.7	304.6	292.8	11.81	25.793		
3,100.0	3,090.5	3,074.8	3,017.4	6.6	11.0	-44.31	171.3	457.2	321.0	308.7	12.21	26.296		
3,200.0	3,190.1	3,173.4	3,113.1	6.8	11.4	-44.05	179.1	479.6	337.3	324.7	12.60	26.767		
3,300.0	3,289.7	3,272.1	3,208.8	7.1	11.9	-43.81	186.8	502.1	353.7	340.7	13.00	27.209		
3,400.0	3,389.2	3,370.7	3,304.6	7.3	12.3	-43.60	194.6	524.6	370.1	356.7	13.40	27.625		
3,500.0	3,488.8	3,469.3	3,400.3	7.6	12.8	-43.40	202.3	547.1	386.5	372.7	13.80	28.016		
3,600.0	3,588.4	3,568.0	3,496.0	7.8	13.3	-43.22	210.1	569.6	402.9	388.7	14.19	28.386		
3,700.0	3,688.0	3,666.6	3,591.7	8.0	13.7	-43.05	217.8	592.1	419.3	404.7	14.59	28.735		
3,800.0	3,787.6	3,765.3	3,687.5	8.3	14.2	-42.90	225.6	614.6	435.7	420.7	14.99	29.065		
3,900.0	3,887.1	3,863.9	3,783.2	8.5	14.6	-42.76	233.3	637.1	452.2	436.8	15.39	29.378		
4,000.0	3,986.7	3,962.5	3,878.9	8.7	15.1	-42.63	241.1	659.6	468.6	452.8	15.79	29.676		
4,100.0	4,086.3	4,061.2	3,974.6	9.0	15.5	-42.50	248.8	682.1	485.0	468.8	16.19	29.958		
4,200.0	4,185.9	4,159.8	4,070.4	9.2	16.0	-42.39	256.6	704.6	501.4	484.8	16.59	30.227		
4,300.0	4,285.4	4,258.4	4,166.1	9.4	16.5	-42.28	264.3	727.0	517.8	500.8	16.99	30.484		
4,400.0	4,385.0	4,357.1	4,261.8	9.7	16.9	-42.18	272.0	749.5	534.3	516.9	17.39	30.728		
4,500.0	4,484.6	4,455.7	4,357.5	9.9	17.4	-42.08	279.8	772.0	550.7	532.9	17.79	30.961		
4,600.0	4,584.2	4,554.4	4,453.3	10.2	17.8	-41.99	287.5	794.5	567.1	548.9	18.19	31.185		
4,700.0	4,683.8	4,653.0	4,549.0	10.4	18.3	-41.91	295.3	817.0	583.5	564.9	18.58	31.398		
4,800.0	4,783.3	4,751.6	4,644.7	10.6	18.7	-41.83	303.0	839.5	600.0	581.0	18.98	31.602		
4,900.0	4,882.9	4,850.3	4,740.4	10.9	19.2	-41.75	310.8	862.0	616.4	597.0	19.38	31.798		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2G-7H-E168 - HZ - Plan #2												Offset Site Error:	0.0 ft
Survey Program: O-Geolink 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	
5,000.0	4,982.5	4,948.9	4,836.2	11.1	19.7	-41.68	318.5	884.5	632.8	613.0	19.78	31.986	
5,100.0	5,082.1	5,047.5	4,931.9	11.3	20.1	-41.61	326.3	907.0	649.3	629.1	20.18	32.167	
5,200.0	5,181.7	5,146.2	5,027.6	11.6	20.6	-41.54	334.0	929.5	665.7	645.1	20.58	32.340	
5,300.0	5,281.2	5,244.8	5,123.4	11.8	21.0	-41.48	341.8	951.9	682.1	661.1	20.98	32.507	
5,400.0	5,380.8	5,343.5	5,219.1	12.0	21.5	-41.42	349.5	974.4	698.6	677.2	21.38	32.668	
5,500.0	5,480.4	5,442.1	5,314.8	12.3	22.0	-41.37	357.3	996.9	715.0	693.2	21.78	32.822	
5,600.0	5,580.0	5,540.7	5,410.5	12.5	22.4	-41.31	365.0	1,019.4	731.4	709.2	22.18	32.971	
5,700.0	5,679.5	5,639.4	5,506.3	12.8	22.9	-41.26	372.8	1,041.9	747.9	725.3	22.58	33.115	
5,800.0	5,779.1	5,738.0	5,602.0	13.0	23.3	-41.21	380.5	1,064.4	764.3	741.3	22.98	33.254	
5,900.0	5,878.7	5,836.7	5,697.7	13.2	23.8	-41.17	388.3	1,086.9	780.7	757.3	23.38	33.388	
6,000.0	5,978.3	5,935.3	5,793.4	13.5	24.2	-41.12	396.0	1,109.4	797.2	773.4	23.78	33.517	
6,100.0	6,077.9	6,033.9	5,889.2	13.7	24.7	-41.08	403.8	1,131.9	813.6	789.4	24.18	33.642	
6,200.0	6,177.4	6,132.6	5,984.9	13.9	25.2	-41.04	411.5	1,154.4	830.0	805.5	24.58	33.763	
6,300.0	6,277.0	6,231.2	6,080.6	14.2	25.6	-41.00	419.3	1,176.9	846.5	821.5	24.98	33.880	
6,400.0	6,376.6	6,329.8	6,176.3	14.4	26.1	-40.96	427.0	1,199.3	862.9	837.5	25.38	33.994	
6,500.0	6,476.2	6,428.5	6,272.1	14.7	26.5	-40.92	434.8	1,221.8	879.4	853.6	25.79	34.104	
6,600.0	6,575.7	6,527.1	6,367.8	14.9	27.0	-40.89	442.5	1,244.3	895.8	869.6	26.19	34.210	
6,700.0	6,675.3	6,625.8	6,463.5	15.1	27.5	-40.85	450.3	1,266.8	912.2	885.7	26.59	34.313	
6,800.0	6,774.9	6,724.4	6,559.2	15.4	27.9	-40.82	458.0	1,289.3	928.7	901.7	26.99	34.414	
6,900.0	6,874.5	6,823.0	6,655.0	15.6	28.4	-40.79	465.8	1,311.8	945.1	917.7	27.39	34.511	
6,949.9	6,924.1	6,872.2	6,702.7	15.7	28.6	-40.77	469.6	1,323.0	953.3	925.7	27.59	34.558	
7,000.0	6,974.0	6,921.8	6,750.8	15.8	28.8	4.99	473.5	1,334.3	960.3	932.4	27.91	34.413	
7,050.0	7,023.4	6,971.3	6,798.8	15.9	29.1	25.41	477.4	1,345.6	964.8	936.8	27.97	34.498	
7,100.0	7,072.1	7,020.4	6,846.5	16.0	29.3	34.74	481.3	1,356.8	966.8	939.0	27.78	34.799	
7,150.0	7,119.7	7,068.8	6,893.4	16.2	29.5	40.26	485.1	1,367.8	966.4	939.0	27.39	35.283	
7,200.0	7,165.9	7,116.0	6,939.3	16.3	29.7	44.28	488.8	1,378.6	963.8	937.0	26.85	35.892	
7,250.0	7,210.2	7,161.8	6,983.8	16.4	29.9	47.67	492.4	1,389.0	959.1	932.9	26.26	36.528	
7,300.0	7,252.5	7,205.8	7,026.5	16.5	30.2	50.80	495.9	1,399.1	952.7	927.0	25.71	37.054	
7,350.0	7,292.2	7,247.7	7,067.1	16.7	30.3	53.86	499.1	1,408.6	944.7	919.3	25.32	37.303	
7,400.0	7,329.2	7,287.1	7,105.3	16.8	30.5	56.91	502.2	1,417.6	935.4	910.2	25.20	37.125	
7,450.0	7,363.2	7,328.2	7,145.3	17.0	30.7	60.15	505.4	1,427.0	925.4	900.0	25.41	36.413	
7,500.0	7,393.8	7,406.5	7,221.4	17.3	31.0	65.58	505.3	1,444.9	914.0	887.7	26.32	34.722	
7,550.0	7,421.0	7,454.4	7,267.8	17.5	31.2	69.88	499.9	1,455.8	902.0	874.7	27.35	32.981	
7,600.0	7,444.3	7,482.3	7,294.5	17.8	31.3	73.00	495.0	1,462.0	890.8	862.5	28.31	31.473	
7,650.0	7,463.8	7,497.0	7,308.4	18.2	31.3	75.12	491.8	1,465.3	881.2	852.1	29.16	30.220	
7,700.0	7,479.2	7,502.6	7,313.7	18.5	31.3	76.41	490.5	1,466.6	873.6	843.6	29.93	29.186	
7,750.0	7,490.4	7,502.0	7,313.1	18.9	31.3	77.02	490.7	1,466.4	868.1	837.5	30.66	28.316	
7,800.0	7,497.4	7,496.8	7,308.3	19.3	31.3	77.07	491.9	1,465.3	864.9	833.5	31.38	27.565	
7,846.6	7,499.9	7,489.0	7,300.9	19.8	31.3	76.68	493.6	1,463.5	864.0	831.9	32.07	26.940	
7,850.0	7,500.0	7,488.4	7,300.2	19.8	31.3	76.63	493.7	1,463.4	864.0	831.8	32.12	26.897	
7,855.2	7,500.0	7,487.3	7,299.2	19.9	31.3	76.56	493.9	1,463.2	864.0	831.8	32.20	26.832	
7,900.0	7,500.0	7,478.9	7,291.2	20.3	31.3	76.02	495.6	1,461.3	865.4	832.8	32.67	26.490	
8,000.0	7,500.0	7,463.8	7,276.7	21.3	31.2	75.03	498.4	1,457.9	876.7	842.9	33.78	25.950	
8,100.0	7,500.0	7,450.0	7,263.5	22.5	31.2	74.13	500.6	1,454.8	898.8	863.8	34.96	25.707	
8,200.0	7,500.0	7,450.0	7,263.5	23.7	31.2	74.13	500.6	1,454.8	931.0	894.7	36.27	25.666	
8,300.0	7,500.0	7,435.8	7,249.8	25.0	31.1	73.20	502.5	1,451.6	972.3	934.7	37.52	25.910	
8,400.0	7,500.0	7,429.8	7,244.0	26.3	31.1	72.80	503.2	1,450.2	1,021.6	982.8	38.87	26.284	
8,500.0	7,500.0	7,424.7	7,239.1	27.7	31.1	72.47	503.7	1,449.0	1,078.0	1,037.8	40.25	26.783	
8,600.0	7,500.0	7,420.4	7,234.9	29.1	31.1	72.19	504.1	1,448.1	1,140.3	1,098.7	41.66	27.371	
8,700.0	7,500.0	7,416.7	7,231.3	30.5	31.1	71.95	504.5	1,447.2	1,207.7	1,164.6	43.10	28.021	
8,800.0	7,500.0	7,400.0	7,215.1	32.0	31.0	70.85	505.7	1,443.4	1,279.5	1,235.1	44.40	28.821	
8,900.0	7,500.0	7,400.0	7,215.1	33.5	31.0	70.85	505.7	1,443.4	1,354.7	1,308.8	45.90	29.513	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills) - Woolley-Sosa 2G-7H-E168 - HZ - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink 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)				
9,000.0	7,500.0	7,400.0	7,215.1	35.1	31.0	70.85	505.7	1,443.4	1,432.9	1,385.4	47.42	30.216		
9,100.0	7,500.0	7,400.0	7,215.1	36.6	31.0	70.85	505.7	1,443.4	1,513.6	1,464.7	48.95	30.919		
9,200.0	7,500.0	7,400.0	7,215.1	38.2	31.0	70.85	505.7	1,443.4	1,596.5	1,546.0	50.50	31.615		
9,300.0	7,500.0	7,400.0	7,215.1	39.8	31.0	70.85	505.7	1,443.4	1,681.3	1,629.3	52.05	32.300		
9,400.0	7,500.0	7,400.0	7,215.1	41.4	31.0	70.85	505.7	1,443.4	1,767.7	1,714.1	53.62	32.969		
9,500.0	7,500.0	7,400.0	7,215.1	43.0	31.0	70.85	505.7	1,443.4	1,855.5	1,800.3	55.19	33.620		
9,600.0	7,500.0	7,400.0	7,215.1	44.6	31.0	70.85	505.7	1,443.4	1,944.4	1,887.6	56.77	34.252		
9,700.0	7,500.0	7,400.0	7,215.1	46.2	31.0	70.85	505.7	1,443.4	2,034.4	1,976.0	58.35	34.864		
9,800.0	7,500.0	7,400.0	7,215.1	47.9	31.0	70.85	505.7	1,443.4	2,125.2	2,065.3	59.94	35.455		
9,900.0	7,500.0	7,400.0	7,215.1	49.5	31.0	70.85	505.7	1,443.4	2,216.9	2,155.3	61.54	36.026		
10,000.0	7,500.0	7,400.0	7,215.1	51.2	31.0	70.85	505.7	1,443.4	2,309.2	2,246.1	63.13	36.576		
10,046.2	7,500.0	7,400.0	7,215.1	51.9	31.0	70.85	505.7	1,443.4	2,352.1	2,288.2	63.87	36.824		
10,100.0	7,500.0	7,400.0	7,215.1	52.8	31.0	70.39	505.7	1,443.4	2,402.2	2,337.9	64.37	37.320		
10,200.0	7,500.0	7,400.0	7,215.1	54.5	31.0	69.43	505.7	1,443.4	2,496.3	2,431.1	65.24	38.266		
10,300.0	7,500.0	7,400.0	7,215.1	56.1	31.0	68.33	505.7	1,443.4	2,591.3	2,525.3	66.02	39.252		
10,400.0	7,500.0	7,400.0	7,215.1	57.8	31.0	67.06	505.7	1,443.4	2,687.2	2,620.5	66.69	40.294		
10,500.0	7,500.0	7,400.0	7,215.1	59.5	31.0	65.56	505.7	1,443.4	2,783.8	2,716.5	67.22	41.414		
10,600.0	7,500.0	7,400.0	7,215.1	61.1	31.0	63.80	505.7	1,443.4	2,880.9	2,813.4	67.55	42.646		
10,700.0	7,500.0	7,400.0	7,215.1	62.8	31.0	61.69	505.7	1,443.4	2,978.7	2,911.0	67.63	44.044		
10,800.0	7,500.0	7,400.0	7,215.1	64.4	31.0	59.15	505.7	1,443.4	3,076.8	3,009.5	67.34	45.691		
10,906.2	7,500.0	7,400.0	7,215.1	66.2	31.0	55.84	505.7	1,443.4	3,181.5	3,115.0	66.46	47.867		
11,000.0	7,500.0	7,400.0	7,215.1	67.7	31.0	55.84	505.7	1,443.4	3,274.1	3,206.3	67.80	48.290		
11,100.0	7,500.0	7,400.0	7,215.1	69.4	31.0	55.84	505.7	1,443.4	3,372.9	3,303.7	69.23	48.722		
11,200.0	7,500.0	7,400.0	7,215.1	71.0	31.0	55.84	505.7	1,443.4	3,471.8	3,401.2	70.66	49.137		
11,256.2	7,500.0	7,400.0	7,215.1	72.0	31.0	55.84	505.7	1,443.4	3,527.4	3,456.0	71.46	49.362		
11,300.0	7,500.0	7,400.0	7,215.1	72.7	31.0	57.47	505.7	1,443.4	3,570.8	3,497.4	73.38	48.659		
11,400.0	7,500.0	7,400.0	7,215.1	74.4	31.0	60.77	505.7	1,443.4	3,669.6	3,592.1	77.43	47.392		
11,500.0	7,500.0	7,400.0	7,215.1	76.1	31.0	63.57	505.7	1,443.4	3,768.2	3,687.1	81.09	46.471		
11,600.0	7,500.0	7,400.0	7,215.1	77.8	31.0	65.96	505.7	1,443.4	3,866.7	3,782.2	84.44	45.790		
11,700.0	7,500.0	7,400.0	7,215.1	79.5	31.0	68.02	505.7	1,443.4	3,964.9	3,877.3	87.57	45.279		
11,800.0	7,500.0	7,378.1	7,193.8	81.2	30.9	68.30	506.6	1,438.4	4,062.5	3,972.8	89.71	45.285		
11,900.0	7,500.0	7,377.7	7,193.4	82.9	30.9	69.94	506.6	1,438.3	4,160.2	4,067.7	92.58	44.936		
12,000.0	7,500.0	7,377.4	7,193.1	84.7	30.9	71.39	506.6	1,438.2	4,257.8	4,162.5	95.32	44.667		
12,100.0	7,500.0	7,377.2	7,192.9	86.4	30.9	72.67	506.6	1,438.2	4,355.1	4,257.1	97.96	44.458		
12,169.2	7,500.0	7,377.1	7,192.8	87.6	30.9	73.48	506.6	1,438.2	4,422.2	4,322.5	99.73	44.342		
12,200.0	7,500.0	7,377.0	7,192.7	88.1	30.9	73.48	506.6	1,438.1	4,452.1	4,351.9	100.24	44.414		
12,300.0	7,500.0	7,376.9	7,192.6	89.8	30.9	73.47	506.6	1,438.1	4,549.2	4,447.3	101.90	44.643		
12,400.0	7,500.0	7,376.7	7,192.4	91.6	30.9	73.46	506.6	1,438.1	4,646.4	4,542.8	103.56	44.865		
12,500.0	7,500.0	7,376.5	7,192.3	93.3	30.9	73.45	506.6	1,438.0	4,743.7	4,638.5	105.22	45.082		
12,600.0	7,500.0	7,376.4	7,192.1	95.0	30.9	73.44	506.6	1,438.0	4,841.1	4,734.2	106.89	45.292		
12,700.0	7,500.0	7,376.3	7,192.0	96.8	30.9	73.44	506.6	1,438.0	4,938.7	4,830.1	108.55	45.497		
12,800.0	7,500.0	7,376.1	7,191.9	98.5	30.9	73.43	506.6	1,437.9	5,036.3	4,926.1	110.21	45.696		
12,900.0	7,500.0	7,376.0	7,191.7	100.2	30.9	73.42	506.6	1,437.9	5,134.0	5,022.1	111.88	45.890		
13,000.0	7,500.0	7,375.9	7,191.6	102.0	30.9	73.42	506.6	1,437.9	5,231.8	5,118.3	113.54	46.078		



# Cathedral Energy Services

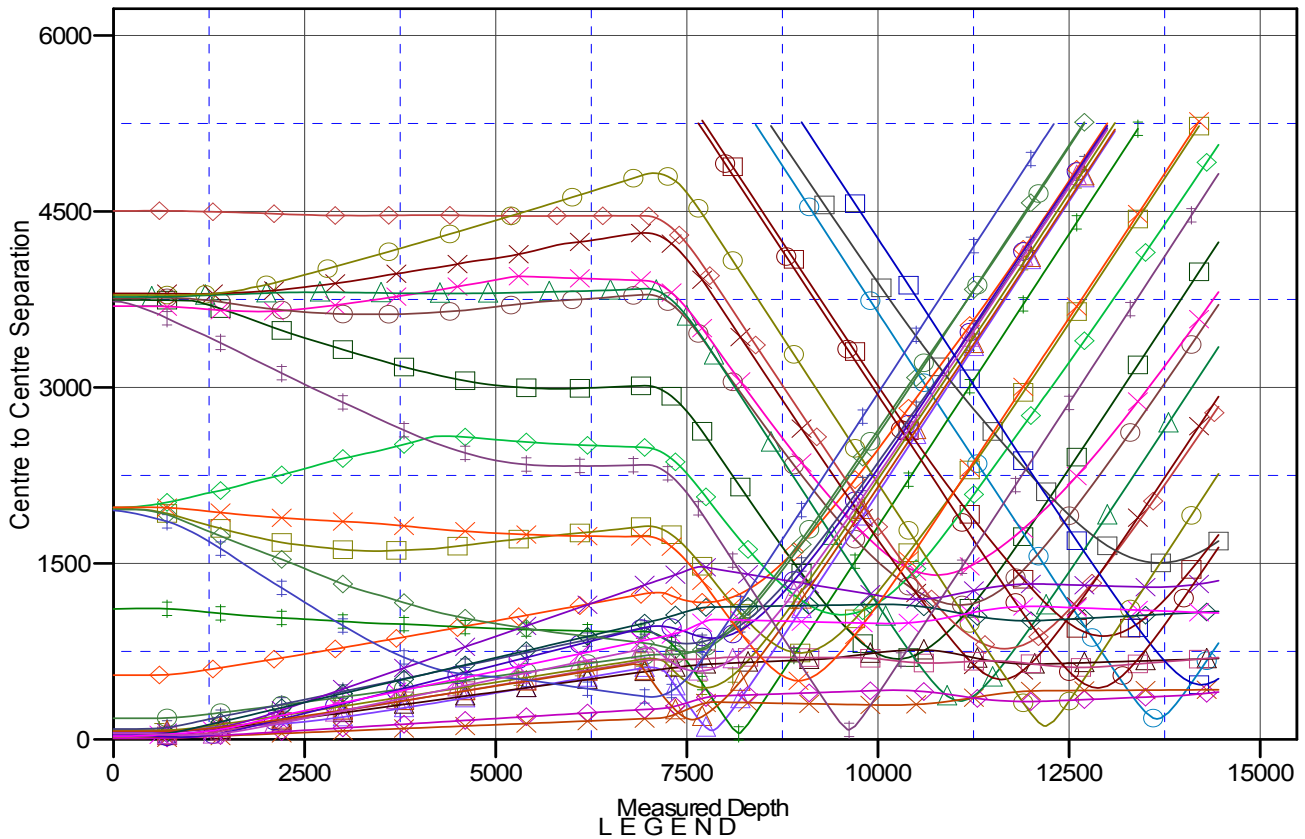
## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Woolley-Becky 2D-7H-E168
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Reference Site:</b>	S7-T1N-R68W (Woolley-Sosa/Becky/Morgan Hills)	<b>MD Reference:</b>	KB @ 5007.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Woolley-Becky 2D-7H-E168	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #4	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB @ 5007.0ft (Unassigned)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Woolley-Becky 2D-7H-E168  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.29°

### Ladder Plot



NG), ENCAN WEL, SURVEYS V0	WOOLLEY 12-7 (EXISTING), ENCAN WEL, NO SURVEYS V0	WOOLLEY 22-7 (EXISTING), ENCAN
NOBLE WEL, NO SURVEYS V0	BEARDEN 23-6 (EXISTING), ENCAN WEL, GYRO V0	WOOLLEY 21-7 (EXISTING), ENCAN
38 Hz, Plan #2 V0	BEARDEN 13-6 (EXISTING), ENCAN WEL, SURVEYS V0	Woolley-Sosa 2D-7H-E168, Hz, Plan #
ING), KERR-MCGEE WEL, SURVEYS V0	BULTHAUP 21-6 (EXISTING), KERR-MCGEE WEL, SURVEYS V0	WOOLLEY 2-4-7 (EXISTING), ENCAN
38 Hz, Plan #3 V0	BECKY 7-6 (EXISTING), NOBLE WEL, NO SURVEYS V0	BECKY 5-6 (EXISTING), FOUNDATIK
ISTING), ENCAN WEL, GYRO V0	Woolley-Sosa 2B-7H-E168, Hz, Plan #2 V0	BECKY 4 (EXISTING), MARTIN EXP1
ING), ENCAN WEL, SURVEYS V0	BEARDEN 2-4-6 (EXISTING), ENCAN WEL, PLAN ONLY V0	Woolley-Becky 2A-7H-E168, Hz, Plan #
ING), ENCAN WEL, SURVEYS V0	Woolley-Becky 2C-7H-E168, Hz, Plan #4 V0	Woolley-Becky 2G-7H-E168, Hz, Plan #
), ENCAN WEL, SURVEYS V0	Woolley-Becky 2H-7H-E168, Hz, Plan #3 V0	Woolley-Sosa 2F-7H-E168, Hz, Plan #
68 Hz, Plan #2 V0	Woolley-Becky 2B-7H-E168, Hz, Plan #2 V0	BEARDEN 2-8-6 (EXISTING), ENCAN