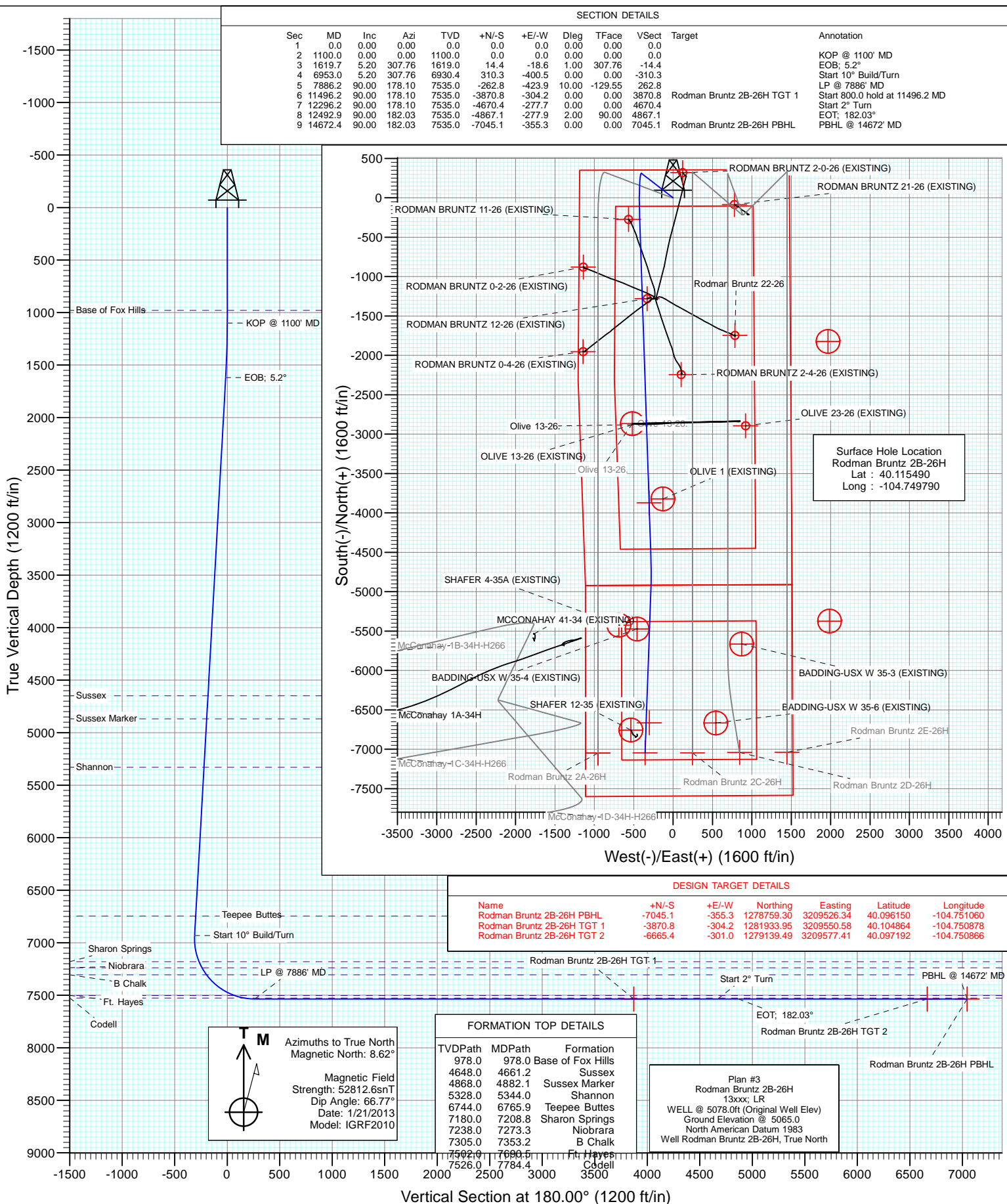




Project: DJ Wattenberg  
Site: S26-T2N-R66W (Rodman Bruntz)  
Well: Rodman Bruntz 2B-26H  
Wellbore: Hz  
Design: Plan #3





**Cathedral Energy Services**  
Planning Report



<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>North Reference:</b>	True
<b>Well:</b>	Rodman Bruntz 2B-26H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

<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		S26-T2N-R66W (Rodman Bruntz)			
Site Position:		Northing:	1,285,917.94 ft	Latitude:	40.115810
From:	Lat/Long	Easting:	3,209,130.25 ft	Longitude:	-104.752260
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.48 °

Well	Rodman Bruntz 2B-26H					
Well Position	+N/-S	0.0 ft	Northing:	1,285,807.20 ft	Latitude:	40.115490
	+E/-W	0.0 ft	Easting:	3,209,822.02 ft	Longitude:	-104.749790
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,065.0 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	1/21/2013	8.62	66.77	52,813

<b>Design</b>	Plan #3				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE		<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	180.00	

<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	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,619.7	5.20	307.76	1,619.0	14.4	-18.6	1.00	1.00	0.00	307.76	
6,953.0	5.20	307.76	6,930.4	310.3	-400.5	0.00	0.00	0.00	0.00	
7,886.2	90.00	178.10	7,535.0	-262.8	-423.9	10.00	9.09	-13.90	-129.55	
11,496.2	90.00	178.10	7,535.0	-3,870.8	-304.2	0.00	0.00	0.00	0.00	Rodman Bruntz 2B-26H
12,296.2	90.00	178.10	7,535.0	-4,670.4	-277.7	0.00	0.00	0.00	0.00	
12,492.9	90.00	182.03	7,535.0	-4,867.1	-277.9	2.00	0.00	2.00	90.00	
14,672.4	90.00	182.03	7,535.0	-7,045.1	-355.3	0.00	0.00	0.00	0.00	Rodman Bruntz 2B-26H



**Database:** USA EDM 5000 Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** DJ Wattenberg  
**Site:** S26-T2N-R66W (Rodman Bruntz)  
**Well:** Rodman Bruntz 2B-26H  
**Wellbore:** Hz  
**Design:** Plan #3

**Local Co-ordinate Reference:** Well Rodman Bruntz 2B-26H  
**TVD Reference:** WELL @ 5078.0ft (Original Well Elev)  
**MD Reference:** WELL @ 5078.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
978.0	0.00	0.00	978.0	0.0	0.0	0.0	0.00	0.00	Base of Fox Hills
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	KOP @ 1100' MD
1,200.0	1.00	307.76	1,200.0	0.5	-0.7	-0.5	1.00	1.00	
1,300.0	2.00	307.76	1,300.0	2.1	-2.8	-2.1	1.00	1.00	
1,400.0	3.00	307.76	1,399.9	4.8	-6.2	-4.8	1.00	1.00	
1,500.0	4.00	307.76	1,499.7	8.5	-11.0	-8.5	1.00	1.00	
1,600.0	5.00	307.76	1,599.4	13.4	-17.2	-13.4	1.00	1.00	
1,619.7	5.20	307.76	1,619.0	14.4	-18.6	-14.4	1.00	1.00	EOB; 5.2°
1,700.0	5.20	307.76	1,699.0	18.9	-24.4	-18.9	0.00	0.00	
1,800.0	5.20	307.76	1,798.5	24.4	-31.5	-24.4	0.00	0.00	
1,900.0	5.20	307.76	1,898.1	30.0	-38.7	-30.0	0.00	0.00	
2,000.0	5.20	307.76	1,997.7	35.5	-45.9	-35.5	0.00	0.00	
2,100.0	5.20	307.76	2,097.3	41.1	-53.0	-41.1	0.00	0.00	
2,200.0	5.20	307.76	2,196.9	46.6	-60.2	-46.6	0.00	0.00	
2,300.0	5.20	307.76	2,296.5	52.2	-67.3	-52.2	0.00	0.00	
2,400.0	5.20	307.76	2,396.1	57.7	-74.5	-57.7	0.00	0.00	
2,500.0	5.20	307.76	2,495.7	63.3	-81.7	-63.3	0.00	0.00	
2,600.0	5.20	307.76	2,595.3	68.8	-88.8	-68.8	0.00	0.00	
2,700.0	5.20	307.76	2,694.8	74.4	-96.0	-74.4	0.00	0.00	
2,800.0	5.20	307.76	2,794.4	79.9	-103.1	-79.9	0.00	0.00	
2,900.0	5.20	307.76	2,894.0	85.4	-110.3	-85.4	0.00	0.00	
3,000.0	5.20	307.76	2,993.6	91.0	-117.5	-91.0	0.00	0.00	
3,100.0	5.20	307.76	3,093.2	96.5	-124.6	-96.5	0.00	0.00	
3,200.0	5.20	307.76	3,192.8	102.1	-131.8	-102.1	0.00	0.00	
3,300.0	5.20	307.76	3,292.4	107.6	-138.9	-107.6	0.00	0.00	
3,400.0	5.20	307.76	3,392.0	113.2	-146.1	-113.2	0.00	0.00	
3,500.0	5.20	307.76	3,491.6	118.7	-153.3	-118.7	0.00	0.00	
3,600.0	5.20	307.76	3,591.1	124.3	-160.4	-124.3	0.00	0.00	
3,700.0	5.20	307.76	3,690.7	129.8	-167.6	-129.8	0.00	0.00	
3,800.0	5.20	307.76	3,790.3	135.4	-174.8	-135.4	0.00	0.00	
3,900.0	5.20	307.76	3,889.9	140.9	-181.9	-140.9	0.00	0.00	
4,000.0	5.20	307.76	3,989.5	146.5	-189.1	-146.5	0.00	0.00	
4,100.0	5.20	307.76	4,089.1	152.0	-196.2	-152.0	0.00	0.00	
4,200.0	5.20	307.76	4,188.7	157.6	-203.4	-157.6	0.00	0.00	
4,300.0	5.20	307.76	4,288.3	163.1	-210.6	-163.1	0.00	0.00	
4,400.0	5.20	307.76	4,387.9	168.7	-217.7	-168.7	0.00	0.00	
4,500.0	5.20	307.76	4,487.4	174.2	-224.9	-174.2	0.00	0.00	
4,600.0	5.20	307.76	4,587.0	179.8	-232.0	-179.8	0.00	0.00	
4,661.2	5.20	307.76	4,648.0	183.2	-236.4	-183.2	0.00	0.00	Sussex
4,700.0	5.20	307.76	4,686.6	185.3	-239.2	-185.3	0.00	0.00	
4,800.0	5.20	307.76	4,786.2	190.8	-246.4	-190.8	0.00	0.00	



**Database:** USA EDM 5000 Multi Users DB  
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**Project:** DJ Wattenberg  
**Site:** S26-T2N-R66W (Rodman Bruntz)  
**Well:** Rodman Bruntz 2B-26H  
**Wellbore:** Hz  
**Design:** Plan #3

**Local Co-ordinate Reference:** Well Rodman Bruntz 2B-26H  
**TVD Reference:** WELL @ 5078.0ft (Original Well Elev)  
**MD Reference:** WELL @ 5078.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,882.1	5.20	307.76	4,868.0	195.4	-252.2	-195.4	0.00	0.00	Sussex Marker
4,900.0	5.20	307.76	4,885.8	196.4	-253.5	-196.4	0.00	0.00	
5,000.0	5.20	307.76	4,985.4	201.9	-260.7	-201.9	0.00	0.00	
5,100.0	5.20	307.76	5,085.0	207.5	-267.8	-207.5	0.00	0.00	
5,200.0	5.20	307.76	5,184.6	213.0	-275.0	-213.0	0.00	0.00	
5,300.0	5.20	307.76	5,284.2	218.6	-282.2	-218.6	0.00	0.00	
5,344.0	5.20	307.76	5,328.0	221.0	-285.3	-221.0	0.00	0.00	Shannon
5,400.0	5.20	307.76	5,383.7	224.1	-289.3	-224.1	0.00	0.00	
5,500.0	5.20	307.76	5,483.3	229.7	-296.5	-229.7	0.00	0.00	
5,600.0	5.20	307.76	5,582.9	235.2	-303.7	-235.2	0.00	0.00	
5,700.0	5.20	307.76	5,682.5	240.8	-310.8	-240.8	0.00	0.00	
5,800.0	5.20	307.76	5,782.1	246.3	-318.0	-246.3	0.00	0.00	
5,900.0	5.20	307.76	5,881.7	251.9	-325.1	-251.9	0.00	0.00	
6,000.0	5.20	307.76	5,981.3	257.4	-332.3	-257.4	0.00	0.00	
6,100.0	5.20	307.76	6,080.9	263.0	-339.5	-263.0	0.00	0.00	
6,200.0	5.20	307.76	6,180.5	268.5	-346.6	-268.5	0.00	0.00	
6,300.0	5.20	307.76	6,280.0	274.1	-353.8	-274.1	0.00	0.00	
6,400.0	5.20	307.76	6,379.6	279.6	-360.9	-279.6	0.00	0.00	
6,500.0	5.20	307.76	6,479.2	285.2	-368.1	-285.2	0.00	0.00	
6,600.0	5.20	307.76	6,578.8	290.7	-375.3	-290.7	0.00	0.00	
6,700.0	5.20	307.76	6,678.4	296.2	-382.4	-296.2	0.00	0.00	
6,765.9	5.20	307.76	6,744.0	299.9	-387.1	-299.9	0.00	0.00	Teepee Buttes
6,800.0	5.20	307.76	6,778.0	301.8	-389.6	-301.8	0.00	0.00	
6,900.0	5.20	307.76	6,877.6	307.3	-396.7	-307.3	0.00	0.00	
6,953.0	5.20	307.76	6,930.4	310.3	-400.5	-310.3	0.00	0.00	Start 10° Build/Turn
7,000.0	4.24	249.05	6,977.2	311.0	-403.8	-311.0	10.00	-2.05	
7,100.0	12.06	197.24	7,076.2	299.6	-410.4	-299.6	10.00	7.82	
7,200.0	21.74	188.22	7,171.8	271.3	-416.2	-271.3	10.00	9.68	
7,208.8	22.60	187.78	7,180.0	268.0	-416.6	-268.0	10.00	9.83	Sharon Springs
7,273.3	28.96	185.37	7,238.0	240.1	-419.8	-240.1	10.00	9.87	Niobrara
7,300.0	31.61	184.63	7,261.1	226.7	-420.9	-226.7	10.00	9.90	
7,353.2	36.88	183.45	7,305.0	196.9	-423.0	-196.9	10.00	9.92	B Chalk
7,400.0	41.54	182.63	7,341.3	167.3	-424.6	-167.3	10.00	9.94	
7,500.0	51.49	181.29	7,410.0	94.9	-427.0	-94.9	10.00	9.95	
7,600.0	61.46	180.28	7,465.2	11.6	-428.1	-11.6	10.00	9.96	
7,690.5	70.48	179.52	7,502.0	-71.0	-427.9	71.0	10.00	9.97	Ft. Hayes
7,700.0	71.43	179.45	7,505.1	-79.9	-427.9	79.9	10.00	9.97	
7,784.4	79.84	178.82	7,526.0	-161.6	-426.6	161.6	10.00	9.97	Codell
7,800.0	81.40	178.71	7,528.5	-177.0	-426.3	177.0	10.00	9.97	
7,886.2	90.00	178.10	7,535.0	-262.8	-423.9	262.8	10.00	9.98	LP @ 7886' MD
7,900.0	90.00	178.10	7,535.0	-276.6	-423.4	276.6	0.00	0.00	
8,000.0	90.00	178.10	7,535.0	-376.6	-420.1	376.6	0.00	0.00	
8,100.0	90.00	178.10	7,535.0	-476.5	-416.8	476.5	0.00	0.00	
8,200.0	90.00	178.10	7,535.0	-576.4	-413.5	576.4	0.00	0.00	
8,300.0	90.00	178.10	7,535.0	-676.4	-410.2	676.4	0.00	0.00	
8,400.0	90.00	178.10	7,535.0	-776.3	-406.9	776.3	0.00	0.00	
8,500.0	90.00	178.10	7,535.0	-876.3	-403.5	876.3	0.00	0.00	
8,600.0	90.00	178.10	7,535.0	-976.2	-400.2	976.2	0.00	0.00	
8,700.0	90.00	178.10	7,535.0	-1,076.2	-396.9	1,076.2	0.00	0.00	
8,800.0	90.00	178.10	7,535.0	-1,176.1	-393.6	1,176.1	0.00	0.00	
8,900.0	90.00	178.10	7,535.0	-1,276.1	-390.3	1,276.1	0.00	0.00	
9,000.0	90.00	178.10	7,535.0	-1,376.0	-387.0	1,376.0	0.00	0.00	

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>North Reference:</b>	True
<b>Well:</b>	Rodman Bruntz 2B-26H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

**Planned Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,100.0	90.00	178.10	7,535.0	-1,476.0	-383.6	1,476.0	0.00	0.00	
9,200.0	90.00	178.10	7,535.0	-1,575.9	-380.3	1,575.9	0.00	0.00	
9,300.0	90.00	178.10	7,535.0	-1,675.8	-377.0	1,675.8	0.00	0.00	
9,400.0	90.00	178.10	7,535.0	-1,775.8	-373.7	1,775.8	0.00	0.00	
9,500.0	90.00	178.10	7,535.0	-1,875.7	-370.4	1,875.7	0.00	0.00	
9,600.0	90.00	178.10	7,535.0	-1,975.7	-367.1	1,975.7	0.00	0.00	
9,700.0	90.00	178.10	7,535.0	-2,075.6	-363.8	2,075.6	0.00	0.00	
9,800.0	90.00	178.10	7,535.0	-2,175.6	-360.4	2,175.6	0.00	0.00	
9,900.0	90.00	178.10	7,535.0	-2,275.5	-357.1	2,275.5	0.00	0.00	
10,000.0	90.00	178.10	7,535.0	-2,375.5	-353.8	2,375.5	0.00	0.00	
10,100.0	90.00	178.10	7,535.0	-2,475.4	-350.5	2,475.4	0.00	0.00	
10,200.0	90.00	178.10	7,535.0	-2,575.3	-347.2	2,575.3	0.00	0.00	
10,300.0	90.00	178.10	7,535.0	-2,675.3	-343.9	2,675.3	0.00	0.00	
10,400.0	90.00	178.10	7,535.0	-2,775.2	-340.5	2,775.2	0.00	0.00	
10,500.0	90.00	178.10	7,535.0	-2,875.2	-337.2	2,875.2	0.00	0.00	
10,600.0	90.00	178.10	7,535.0	-2,975.1	-333.9	2,975.1	0.00	0.00	
10,700.0	90.00	178.10	7,535.0	-3,075.1	-330.6	3,075.1	0.00	0.00	
10,800.0	90.00	178.10	7,535.0	-3,175.0	-327.3	3,175.0	0.00	0.00	
10,900.0	90.00	178.10	7,535.0	-3,275.0	-324.0	3,275.0	0.00	0.00	
11,000.0	90.00	178.10	7,535.0	-3,374.9	-320.7	3,374.9	0.00	0.00	
11,100.0	90.00	178.10	7,535.0	-3,474.9	-317.3	3,474.9	0.00	0.00	
11,200.0	90.00	178.10	7,535.0	-3,574.8	-314.0	3,574.8	0.00	0.00	
11,300.0	90.00	178.10	7,535.0	-3,674.7	-310.7	3,674.7	0.00	0.00	
11,400.0	90.00	178.10	7,535.0	-3,774.7	-307.4	3,774.7	0.00	0.00	
11,496.2	90.00	178.10	7,535.0	-3,870.8	-304.2	3,870.8	0.00	0.00	Start 800.0 hold at 11496.2 MD
11,500.0	90.00	178.10	7,535.0	-3,874.6	-304.1	3,874.6	0.00	0.00	
11,600.0	90.00	178.10	7,535.0	-3,974.6	-300.8	3,974.6	0.00	0.00	
11,700.0	90.00	178.10	7,535.0	-4,074.5	-297.4	4,074.5	0.00	0.00	
11,800.0	90.00	178.10	7,535.0	-4,174.5	-294.1	4,174.5	0.00	0.00	
11,900.0	90.00	178.10	7,535.0	-4,274.4	-290.8	4,274.4	0.00	0.00	
12,000.0	90.00	178.10	7,535.0	-4,374.4	-287.5	4,374.4	0.00	0.00	
12,100.0	90.00	178.10	7,535.0	-4,474.3	-284.2	4,474.3	0.00	0.00	
12,200.0	90.00	178.10	7,535.0	-4,574.3	-280.9	4,574.3	0.00	0.00	
12,296.2	90.00	178.10	7,535.0	-4,670.4	-277.7	4,670.4	0.00	0.00	Start 2° Turn
12,300.0	90.00	178.18	7,535.0	-4,674.2	-277.6	4,674.2	2.00	0.00	
12,400.0	90.00	180.18	7,535.0	-4,774.2	-276.1	4,774.2	2.00	0.00	
12,492.9	90.00	182.03	7,535.0	-4,867.1	-277.9	4,867.1	2.00	0.00	EOT; 182.03°
12,500.0	90.00	182.03	7,535.0	-4,874.2	-278.2	4,874.2	0.00	0.00	
12,600.0	90.00	182.03	7,535.0	-4,974.1	-281.7	4,974.1	0.00	0.00	
12,700.0	90.00	182.03	7,535.0	-5,074.0	-285.3	5,074.0	0.00	0.00	
12,800.0	90.00	182.03	7,535.0	-5,174.0	-288.8	5,174.0	0.00	0.00	
12,900.0	90.00	182.03	7,535.0	-5,273.9	-292.4	5,273.9	0.00	0.00	
13,000.0	90.00	182.03	7,535.0	-5,373.8	-295.9	5,373.8	0.00	0.00	
13,100.0	90.00	182.03	7,535.0	-5,473.8	-299.5	5,473.8	0.00	0.00	
13,200.0	90.00	182.03	7,535.0	-5,573.7	-303.0	5,573.7	0.00	0.00	
13,300.0	90.00	182.03	7,535.0	-5,673.6	-306.6	5,673.6	0.00	0.00	
13,400.0	90.00	182.03	7,535.0	-5,773.6	-310.1	5,773.6	0.00	0.00	
13,500.0	90.00	182.03	7,535.0	-5,873.5	-313.7	5,873.5	0.00	0.00	
13,600.0	90.00	182.03	7,535.0	-5,973.5	-317.2	5,973.5	0.00	0.00	
13,700.0	90.00	182.03	7,535.0	-6,073.4	-320.8	6,073.4	0.00	0.00	
13,800.0	90.00	182.03	7,535.0	-6,173.3	-324.3	6,173.3	0.00	0.00	
13,900.0	90.00	182.03	7,535.0	-6,273.3	-327.9	6,273.3	0.00	0.00	

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>North Reference:</b>	True
<b>Well:</b>	Rodman Bruntz 2B-26H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,000.0	90.00	182.03	7,535.0	-6,373.2	-331.4	6,373.2	0.00	0.00	
14,100.0	90.00	182.03	7,535.0	-6,473.1	-335.0	6,473.1	0.00	0.00	
14,200.0	90.00	182.03	7,535.0	-6,573.1	-338.5	6,573.1	0.00	0.00	
14,300.0	90.00	182.03	7,535.0	-6,673.0	-342.1	6,673.0	0.00	0.00	
14,400.0	90.00	182.03	7,535.0	-6,773.0	-345.6	6,773.0	0.00	0.00	
14,500.0	90.00	182.03	7,535.0	-6,872.9	-349.2	6,872.9	0.00	0.00	
14,600.0	90.00	182.03	7,535.0	-6,972.8	-352.7	6,972.8	0.00	0.00	
14,672.4	90.00	182.03	7,535.0	-7,045.1	-355.3	7,045.1	0.00	0.00	PBHL @ 14672' MD

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude		Longitude
Rodman Bruntz 2B-26H - hit/miss target - Shape - Point	0.00	0.00	7,535.0	-6,665.4	-301.0	1,279,139.49	3,209,577.41	40.097192		-104.750866
- plan misses target center by 40.8ft at 14290.9ft MD (7535.0 TVD, -6664.0 N, -341.8 E)										
Rodman Bruntz 2B-26H - plan hits target center - Point	0.00	0.00	7,535.0	-7,045.1	-355.3	1,278,759.30	3,209,526.34	40.096150		-104.751060
Rodman Bruntz 2B-26H - plan hits target center - Point	0.00	0.00	7,535.0	-3,870.8	-304.2	1,281,933.95	3,209,550.58	40.104864		-104.750878

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
978.0	978.0	Base of Fox Hills				
4,661.2	4,648.0	Sussex				
4,882.1	4,868.0	Sussex Marker				
5,344.0	5,328.0	Shannon				
6,765.9	6,744.0	Teepee Buttes				
7,208.8	7,180.0	Sharon Springs				
7,273.3	7,238.0	Niobrara				
7,353.2	7,305.0	B Chalk				
7,690.5	7,502.0	Ft. Hayes				
7,784.4	7,526.0	Codell				



<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>North Reference:</b>	True
<b>Well:</b>	Rodman Bruntz 2B-26H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	Plan #3		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,100.0	1,100.0	0.0	0.0	KOP @ 1100' MD
1,619.7	1,619.0	14.4	-18.6	EOB; 5.2°
6,953.0	6,930.4	310.3	-400.5	Start 10° Build/Turn
7,886.2	7,535.0	-262.8	-423.9	LP @ 7886' MD
11,496.2	7,535.0	-3,870.8	-304.2	Start 800.0 hold at 11496.2 MD
12,296.2	7,535.0	-4,670.4	-277.7	Start 2° Turn
12,492.9	7,535.0	-4,867.1	-277.9	EOT; 182.03°
14,672.4	7,535.0	-7,045.1	-355.3	PBHL @ 14672' MD



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

**DJ Wattenberg**

**S26-T2N-R66W (Rodman Bruntz)**

**Rodman Bruntz 2B-26H**

**Hz**

**Plan #3**

## **Anticollision Report**

**23 August, 2013**







**Cathedral Energy Services**  
Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #3		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>		<b>Date</b>	8/23/2013		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.0	14,672.4	Plan #3 (Hz)	MWD	Geolink MWD	



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
S26-T2N-R66W (Olive)						
Olive 13-26 - DD - DD	10,496.8	7,777.8	177.7	110.6	2.651	CC
Olive 13-26 - DD - DD	10,500.0	7,777.8	177.7	110.6	2.649	ES, SF
Olive 13-26 - DD - Plan #1	10,485.7	7,731.7	179.9	113.1	2.695	CC, ES
Olive 13-26 - DD - Plan #1	10,500.0	7,731.7	180.4	113.5	2.694	SF
Olive 13-26 - DD - Plan #2	10,485.7	7,738.6	179.9	113.1	2.695	CC, ES
Olive 13-26 - DD - Plan #2	10,500.0	7,738.6	180.4	113.4	2.694	SF
S26-T2N-R66W (Rodman Bruntz)						
BADDING-USX W 35-3 (EXISTING) - Existing - Existing	13,249.1	7,568.0	1,175.5	1,060.9	10.258	CC, ES
BADDING-USX W 35-3 (EXISTING) - Existing - Existing	13,500.0	7,568.0	1,202.0	1,083.0	10.104	SF
BADDING-USX W 35-4 (EXISTING) - Existing - Existing	13,105.1	7,543.0	157.6	45.5	1.406	Level 3, CC, ES, SF
BADDING-USX W 35-6 (EXISTING) - Existing - Existing	14,261.9	7,571.0	884.0	751.8	6.685	CC, ES
BADDING-USX W 35-6 (EXISTING) - Existing - Existing	14,400.0	7,571.0	894.7	760.1	6.645	SF
OLIVE 1 (EXISTING) - Existing - Existing	11,452.8	7,531.0	176.5	93.4	2.125	CC, ES, SF
OLIVE 13-26 (EXISTING) - Existing - Existing	10,496.8	7,761.8	177.6	110.6	2.650	CC
OLIVE 13-26 (EXISTING) - Existing - Existing	10,500.0	7,761.8	177.6	110.6	2.649	ES, SF
OLIVE 13-26 (EXISTING) - Existing - Plan #1	10,485.8	7,731.7	179.9	113.1	2.695	CC, ES
OLIVE 13-26 (EXISTING) - Existing - Plan #1	10,500.0	7,731.7	180.4	113.4	2.694	SF
OLIVE 13-26 (EXISTING) - Existing - Plan #2	10,485.7	7,738.6	179.9	113.1	2.695	CC, ES
OLIVE 13-26 (EXISTING) - Existing - Plan #2	10,500.0	7,738.6	180.4	113.4	2.693	SF
OLIVE 23-26 (EXISTING) - Existing - Existing	10,560.0	7,545.0	1,256.5	1,188.7	18.535	CC
OLIVE 23-26 (EXISTING) - Existing - Existing	10,600.0	7,545.0	1,257.1	1,188.6	18.359	ES
OLIVE 23-26 (EXISTING) - Existing - Existing	11,000.0	7,545.0	1,331.3	1,256.0	17.677	SF
RODMAN BRUNTZ 0-2-26 (EXISTING) - ENCANA WEL	8,475.8	7,645.8	734.7	698.5	20.286	CC, ES
RODMAN BRUNTZ 0-2-26 (EXISTING) - ENCANA WEL	8,700.0	7,646.5	768.1	728.7	19.494	SF
RODMAN BRUNTZ 0-4-26 (EXISTING) - ENCANA WEL	9,549.5	7,686.9	768.8	713.3	13.850	CC, ES
RODMAN BRUNTZ 0-4-26 (EXISTING) - ENCANA WEL	9,700.0	7,685.8	783.4	725.4	13.509	SF
RODMAN BRUNTZ 11-26 (EXISTING) - ENCANA WELL	7,902.0	7,660.3	134.4	97.9	3.684	CC, ES, SF
RODMAN BRUNTZ 12-26 (EXISTING) - ENCANA WELL	8,904.8	7,530.6	62.6	28.6	1.844	CC, ES, SF
RODMAN BRUNTZ 2-0-26 (EXISTING) - ENCANA WEL	4,097.5	4,346.2	333.0	302.6	10.971	CC
RODMAN BRUNTZ 2-0-26 (EXISTING) - ENCANA WEL	4,100.0	4,348.5	333.0	302.6	10.960	ES
RODMAN BRUNTZ 2-0-26 (EXISTING) - ENCANA WEL	4,400.0	4,635.6	345.0	311.2	10.222	SF
RODMAN BRUNTZ 21-26 (EXISTING) - ENCANA WELL	687.2	706.2	963.2	961.4	537.158	CC
RODMAN BRUNTZ 21-26 (EXISTING) - ENCANA WELL	700.0	718.5	963.2	961.3	527.437	ES
RODMAN BRUNTZ 21-26 (EXISTING) - ENCANA WELL	9,400.0	7,567.7	2,046.3	2,004.4	48.840	SF
Rodman Bruntz 22-26 - DD - SURVEYS	9,408.3	7,688.5	1,152.3	1,100.9	22.393	CC, ES
Rodman Bruntz 22-26 - DD - SURVEYS	9,800.0	7,686.5	1,217.1	1,159.2	21.016	SF
RODMAN BRUNTZ 2-4-26 (EXISTING) - ENCANA WEL	9,883.3	7,680.6	463.6	398.6	7.133	CC, ES
RODMAN BRUNTZ 2-4-26 (EXISTING) - ENCANA WEL	9,900.0	7,680.6	463.9	398.6	7.107	SF
Rodman Bruntz 2A-26H - DD - Plan #2	500.0	500.0	11.2	9.5	6.581	CC, ES
Rodman Bruntz 2A-26H - DD - Plan #2	14,672.9	14,515.5	637.8	400.1	2.683	SF
Rodman Bruntz 2C-26H - Hz - Plan #1	5,106.8	5,247.8	544.8	520.4	22.328	CC
Rodman Bruntz 2C-26H - Hz - Plan #1	14,672.4	14,519.4	635.1	399.1	2.691	ES
Rodman Bruntz 2C-26H - Hz - Plan #1	14,672.9	14,519.4	635.2	399.1	2.690	SF
Rodman Bruntz 2D-26H - Hz - Plan #3	1,597.9	1,704.3	845.8	838.9	122.241	CC
Rodman Bruntz 2D-26H - Hz - Plan #3	12,492.9	12,530.3	971.7	798.9	5.624	ES
Rodman Bruntz 2D-26H - Hz - Plan #3	14,000.0	13,921.0	1,058.8	835.7	4.746	SF
Rodman Bruntz 2E-26H - Hz - Plan #1	150.3	183.3	920.4	919.9	1,715.009	CC
Rodman Bruntz 2E-26H - Hz - Plan #1	200.0	230.4	920.5	919.8	1,303.694	ES
Rodman Bruntz 2E-26H - Hz - Plan #1	14,672.9	14,490.6	1,813.1	1,566.6	7.357	SF
SHAHER 12-35 (EXISTING) - Existing - SURVEYS	14,390.1	7,560.4	191.6	57.1	1.424	Level 3, CC, ES, SF
SHAHER 4-35A (EXISTING) - Existing - Existing	13,064.9	7,537.0	389.9	278.6	3.502	CC, ES
SHAHER 4-35A (EXISTING) - Existing - Existing	13,100.0	7,537.0	391.5	279.5	3.497	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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance		Separation Factor	Warning
Offset Well - Wellbore - Design			Between Centres (ft)	Between Ellipses (ft)		
S34-T2N-R66W (McConahay)						
McConahay 1A-34H - Hz - Hz	13,287.8	6,977.9	1,144.6	1,046.5	11.667	CC
McConahay 1A-34H - Hz - Hz	13,300.0	6,979.0	1,144.7	1,046.3	11.640	ES
McConahay 1A-34H - Hz - Hz	13,600.0	7,011.4	1,185.6	1,081.2	11.355	SF
McConahay 1B-34H-H266 - Hz - Plan #3	13,077.4	7,200.0	1,556.5	1,441.3	13.514	CC
McConahay 1B-34H-H266 - Hz - Plan #3	13,100.0	7,200.0	1,556.7	1,441.1	13.471	ES
McConahay 1B-34H-H266 - Hz - Plan #3	13,400.0	7,200.0	1,589.6	1,469.0	13.183	SF
McConahay 1C-34H-H266 - Hz - Plan #1	14,351.6	7,275.5	949.6	825.7	7.666	CC, ES
McConahay 1C-34H-H266 - Hz - Plan #1	14,500.0	7,284.3	961.0	834.3	7.582	SF
McConahay 1D-34H-H266 - Hz - Plan #1	14,672.9	7,200.0	1,216.2	1,090.6	9.682	CC, ES, SF
MCCONAHAY 41-34 (EXISTING) - ENCANA WELL - GY	13,213.8	7,546.6	1,466.7	1,359.5	13.672	CC, ES
MCCONAHAY 41-34 (EXISTING) - ENCANA WELL - GY	13,600.0	7,544.4	1,516.7	1,402.7	13.305	SF
MCCONAHAY 43-34 (EXISTING) - ENCANA WELL - NO	14,672.9	7,525.0	1,885.7	1,746.4	13.534	CC, ES, SF
McConahay 4A-34H-P266 - Hz - Plan #2	14,672.9	7,319.8	1,982.7	1,846.9	14.601	CC, ES, SF



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Olive) - Olive 13-26. - DD - DD													Offset Site Error: 0.0 ft			
Survey Program: 1179-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	26.6	26.6	0.0	0.0	163.30	-2,834.1	850.3	2,958.9							
100.0	100.0	125.2	125.2	0.2	0.2	163.30	-2,834.1	850.3	2,958.9	2,958.6	0.37	8,054.121				
200.0	200.0	223.7	223.7	0.3	0.4	163.30	-2,834.2	850.2	2,959.0	2,958.3	0.71	4,158.175				
300.0	300.0	322.3	322.3	0.5	0.6	163.31	-2,834.4	850.0	2,959.1	2,958.1	1.06	2,802.632				
400.0	400.0	420.9	420.9	0.7	0.7	163.31	-2,834.7	849.8	2,959.3	2,957.9	1.40	2,113.691				
500.0	500.0	519.4	519.4	0.8	0.9	163.32	-2,835.0	849.6	2,959.6	2,957.8	1.74	1,696.698				
600.0	600.0	618.0	618.0	1.0	1.1	163.33	-2,835.4	849.2	2,959.8	2,957.8	2.09	1,417.185				
700.0	700.0	716.6	716.5	1.2	1.2	163.34	-2,835.8	848.9	2,960.2	2,957.7	2.43	1,216.794				
800.0	800.0	815.1	815.1	1.4	1.4	163.35	-2,836.3	848.4	2,960.5	2,957.8	2.78	1,066.101				
900.0	900.0	913.7	913.7	1.5	1.6	163.36	-2,836.9	848.0	2,961.0	2,957.9	3.12	948.663				
1,000.0	1,000.0	1,012.2	1,012.2	1.7	1.8	163.37	-2,837.6	847.4	2,961.4	2,958.0	3.47	854.569				
1,100.0	1,100.0	1,110.8	1,110.8	1.9	1.9	163.39	-2,838.3	846.8	2,962.0	2,958.2	3.81	777.493				
1,200.0	1,200.0	1,217.2	1,217.2	2.1	2.1	-144.36	-2,839.1	846.0	2,963.2	2,959.0	4.18	709.354				
1,300.0	1,300.0	1,374.7	1,374.5	2.2	2.4	-144.27	-2,840.2	839.6	2,964.9	2,960.3	4.64	638.587				
1,400.0	1,399.9	1,596.4	1,594.7	2.4	2.9	-143.92	-2,839.7	814.5	2,965.3	2,960.0	5.31	558.908				
1,500.0	1,499.7	1,714.0	1,710.3	2.6	3.2	-143.62	-2,838.4	793.2	2,964.0	2,958.2	5.81	510.032				
1,533.9	1,533.5	1,745.2	1,740.8	2.7	3.3	-143.52	-2,838.3	786.5	2,963.9	2,957.9	5.97	496.658				
1,600.0	1,599.4	1,814.2	1,807.9	2.8	3.6	-143.28	-2,838.5	770.3	2,964.2	2,957.9	6.33	468.014				
1,619.7	1,619.0	1,834.7	1,827.7	2.8	3.6	-143.20	-2,838.7	765.1	2,964.4	2,957.9	6.44	460.117				
1,700.0	1,699.0	1,910.4	1,900.7	3.0	4.0	-142.89	-2,839.7	744.7	2,965.4	2,958.5	6.90	429.539				
1,800.0	1,798.5	2,056.6	2,040.1	3.2	4.7	-142.22	-2,841.8	701.0	2,966.2	2,958.4	7.78	381.135				
1,900.0	1,898.1	2,196.7	2,171.7	3.4	5.5	-141.45	-2,843.2	652.8	2,965.5	2,956.7	8.77	338.011				
2,000.0	1,997.7	2,297.9	2,265.3	3.6	6.1	-140.83	-2,844.2	614.6	2,964.2	2,954.6	9.60	308.818				
2,100.0	2,097.3	2,392.7	2,353.2	3.9	6.7	-140.26	-2,845.0	579.0	2,963.3	2,952.9	10.40	284.899				
2,200.0	2,196.9	2,478.1	2,432.4	4.1	7.3	-139.74	-2,845.8	547.2	2,962.8	2,951.7	11.15	265.751				
2,229.0	2,225.8	2,504.5	2,457.0	4.1	7.5	-139.59	-2,846.1	537.5	2,962.8	2,951.5	11.38	260.455				
2,300.0	2,296.5	2,577.5	2,525.1	4.3	7.9	-139.16	-2,846.7	511.1	2,962.9	2,950.9	11.98	247.332				
2,400.0	2,396.1	2,658.8	2,601.0	4.5	8.5	-138.70	-2,847.3	482.1	2,963.2	2,950.5	12.70	233.254				
2,500.0	2,495.7	2,751.5	2,687.6	4.7	9.1	-138.17	-2,848.5	449.0	2,964.3	2,950.8	13.51	219.444				
2,600.0	2,595.3	2,845.8	2,775.8	5.0	9.7	-137.64	-2,849.6	415.7	2,965.6	2,951.3	14.31	207.208				
2,700.0	2,694.8	2,934.3	2,858.9	5.2	10.2	-137.16	-2,850.5	385.4	2,967.4	2,952.3	15.07	196.885				
2,800.0	2,794.4	3,103.3	3,017.6	5.4	11.3	-136.24	-2,850.3	327.1	2,968.1	2,951.7	16.39	181.140				
2,813.2	2,807.6	3,115.1	3,028.6	5.4	11.4	-136.17	-2,850.2	322.8	2,968.1	2,951.6	16.49	179.950				
2,900.0	2,894.0	3,189.2	3,097.3	5.6	11.9	-135.73	-2,849.8	295.2	2,968.3	2,951.1	17.21	172.476				
3,000.0	2,993.6	3,268.0	3,169.6	5.9	12.5	-135.22	-2,849.9	264.0	2,969.3	2,951.3	18.00	164.985				
3,100.0	3,093.2	3,336.0	3,232.6	6.1	13.0	-134.80	-2,850.3	238.1	2,971.2	2,952.5	18.68	159.079				
3,200.0	3,192.8	3,414.3	3,305.4	6.3	13.5	-134.35	-2,851.2	209.6	2,974.2	2,954.7	19.42	153.142				
3,300.0	3,292.4	3,499.6	3,385.1	6.5	14.1	-133.86	-2,852.6	179.0	2,978.0	2,957.8	20.21	147.364				
3,400.0	3,392.0	3,605.7	3,484.2	6.8	14.8	-133.26	-2,854.3	141.3	2,982.1	2,961.0	21.14	141.082				
3,500.0	3,491.6	3,716.3	3,587.5	7.0	15.6	-132.64	-2,855.6	101.8	2,986.0	2,963.9	22.11	135.053				
3,600.0	3,591.1	3,821.2	3,685.6	7.2	16.2	-132.05	-2,856.3	64.7	2,989.8	2,966.8	23.01	129.910				
3,700.0	3,690.7	3,915.5	3,774.4	7.5	16.8	-131.56	-2,856.8	32.8	2,993.8	2,970.0	23.83	125.625				
3,800.0	3,790.3	3,997.0	3,851.1	7.7	17.4	-131.13	-2,857.1	5.2	2,998.1	2,973.5	24.58	121.986				
3,900.0	3,889.9	4,073.0	3,922.3	7.9	17.9	-130.72	-2,857.9	-21.2	3,003.2	2,977.8	25.31	118.662				
4,000.0	3,989.5	4,139.1	3,984.2	8.2	18.3	-130.36	-2,859.4	-44.5	3,009.5	2,983.6	25.95	115.952				
4,100.0	4,089.1	4,218.4	4,058.8	8.4	18.8	-129.94	-2,861.8	-71.3	3,017.0	2,990.3	26.68	113.093				
4,200.0	4,188.7	4,350.5	4,183.3	8.6	19.6	-129.27	-2,865.5	-115.3	3,024.5	2,996.8	27.74	109.037				
4,300.0	4,288.3	4,461.7	4,288.0	8.9	20.4	-128.70	-2,867.3	-152.8	3,031.1	3,002.4	28.67	105.710				
4,400.0	4,387.9	4,553.4	4,374.4	9.1	20.9	-128.24	-2,868.7	-183.3	3,037.8	3,008.3	29.47	103.090				
4,500.0	4,487.4	4,656.2	4,471.7	9.3	21.5	-127.75	-2,870.4	-216.4	3,044.9	3,014.6	30.29	100.530				
4,600.0	4,587.0	4,752.0	4,563.3	9.6	22.1	-127.35	-2,871.7	-244.4	3,051.9	3,020.9	31.03	98.365				
4,700.0	4,686.6	4,867.6	4,674.6	9.8	22.7	-126.91	-2,873.1	-275.7	3,058.8	3,027.0	31.83	96.088				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Olive) - Olive 13-26. - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 1179-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)				
4,800.0	4,786.2	4,951.2	4,755.1	10.0	23.1	-126.60	-2,874.0	-298.3	3,065.9	3,033.4	32.48	94.390		
4,900.0	4,885.8	5,064.2	4,864.3	10.3	23.6	-126.21	-2,875.5	-327.3	3,073.2	3,040.0	33.24	92.453		
5,000.0	4,985.4	5,186.1	4,982.6	10.5	24.2	-125.82	-2,876.3	-356.7	3,079.9	3,045.9	34.02	90.542		
5,100.0	5,085.0	5,317.0	5,110.0	10.7	24.8	-125.44	-2,875.5	-386.8	3,085.3	3,050.5	34.81	88.642		
5,200.0	5,184.6	5,418.5	5,209.2	11.0	25.2	-125.18	-2,874.5	-408.2	3,090.4	3,054.9	35.43	87.224		
5,300.0	5,284.2	5,514.5	5,303.3	11.2	25.5	-124.97	-2,873.8	-426.7	3,095.8	3,059.8	36.00	85.993		
5,400.0	5,383.7	5,601.3	5,388.8	11.4	25.8	-124.80	-2,873.6	-442.2	3,101.6	3,065.1	36.52	84.930		
5,500.0	5,483.3	5,707.4	5,493.4	11.7	26.2	-124.61	-2,873.4	-459.9	3,107.4	3,070.3	37.07	83.827		
5,600.0	5,582.9	5,802.5	5,587.6	11.9	26.4	-124.51	-2,873.2	-472.9	3,113.1	3,075.5	37.54	82.928		
5,700.0	5,682.5	5,894.8	5,679.3	12.1	26.7	-124.43	-2,873.4	-483.9	3,119.2	3,081.2	37.99	82.111		
5,800.0	5,782.1	6,037.8	5,821.5	12.4	26.9	-124.36	-2,873.0	-498.3	3,124.5	3,086.1	38.50	81.164		
5,900.0	5,881.7	6,148.6	5,932.1	12.6	27.1	-124.38	-2,871.9	-505.3	3,129.1	3,090.2	38.89	80.469		
6,000.0	5,981.3	6,249.1	6,032.4	12.8	27.3	-124.43	-2,870.8	-510.3	3,133.3	3,094.1	39.24	79.848		
6,100.0	6,080.9	6,324.7	6,108.0	13.1	27.3	-124.49	-2,870.4	-512.8	3,138.1	3,098.6	39.54	79.371		
6,200.0	6,180.5	6,413.0	6,196.3	13.3	27.4	-124.59	-2,870.4	-513.8	3,143.4	3,103.6	39.82	78.948		
6,300.0	6,280.0	6,508.0	6,291.3	13.5	27.5	-124.72	-2,870.9	-513.6	3,149.1	3,109.0	40.09	78.547		
6,400.0	6,379.6	6,605.5	6,388.7	13.8	27.5	-124.87	-2,871.5	-512.9	3,154.9	3,114.5	40.36	78.159		
6,500.0	6,479.2	6,695.0	6,478.3	14.0	27.6	-125.01	-2,872.2	-511.9	3,160.8	3,120.2	40.63	77.801		
6,600.0	6,578.8	6,789.0	6,572.3	14.2	27.6	-125.15	-2,873.3	-511.2	3,167.1	3,126.1	40.91	77.410		
6,700.0	6,678.4	6,884.0	6,667.3	14.5	27.7	-125.28	-2,874.4	-510.9	3,173.4	3,132.3	41.18	77.053		
6,800.0	6,778.0	6,992.4	6,775.7	14.7	27.8	-125.44	-2,875.6	-510.2	3,179.8	3,138.3	41.48	76.666		
6,900.0	6,877.6	7,099.1	6,882.3	14.9	27.9	-125.58	-2,876.4	-510.3	3,185.9	3,144.1	41.78	76.262		
6,953.0	6,930.4	7,159.4	6,942.6	15.1	27.9	-125.66	-2,876.8	-510.5	3,189.0	3,147.1	41.94	76.041		
7,000.0	6,977.2	7,205.8	6,989.0	15.1	27.9	-67.16	-2,877.0	-510.6	3,189.8	3,147.7	42.08	75.800		
7,050.0	7,027.0	7,255.0	7,038.2	15.2	28.0	-28.41	-2,877.2	-510.7	3,186.4	3,144.5	41.96	75.931		
7,100.0	7,076.2	7,302.0	7,085.2	15.2	28.0	-15.74	-2,877.5	-510.9	3,178.8	3,137.2	41.58	76.457		
7,150.0	7,124.6	7,348.5	7,131.8	15.3	28.1	-10.10	-2,877.7	-511.3	3,166.9	3,126.0	40.92	77.399		
7,200.0	7,171.8	7,413.0	7,196.2	15.2	28.1	-6.96	-2,878.0	-511.9	3,150.7	3,110.7	40.01	78.751		
7,250.0	7,217.4	7,464.3	7,247.5	15.2	28.2	-4.92	-2,877.9	-512.4	3,130.2	3,091.4	38.84	80.600		
7,300.0	7,261.1	7,503.8	7,287.1	15.2	28.2	-3.45	-2,877.9	-512.7	3,105.9	3,068.5	37.42	83.006		
7,350.0	7,302.5	7,542.4	7,325.6	15.2	28.3	-2.29	-2,877.9	-513.0	3,078.0	3,042.2	35.78	86.018		
7,400.0	7,341.3	7,585.6	7,368.8	15.1	28.3	-1.29	-2,877.9	-513.3	3,046.5	3,012.6	33.96	89.706		
7,450.0	7,377.2	7,625.5	7,408.7	15.1	28.3	-0.35	-2,877.9	-513.8	3,011.8	2,979.8	31.97	94.200		
7,500.0	7,410.0	7,655.7	7,438.9	15.1	28.4	0.62	-2,877.8	-514.1	2,974.0	2,944.1	29.85	99.645		
7,550.0	7,439.4	7,681.9	7,465.2	15.2	28.4	1.69	-2,877.8	-514.3	2,933.6	2,905.9	27.64	106.147		
7,600.0	7,465.2	7,705.1	7,488.3	15.2	28.4	2.98	-2,877.8	-514.5	2,890.8	2,865.4	25.41	113.768		
7,650.0	7,487.1	7,725.0	7,508.2	15.3	28.4	4.70	-2,877.9	-514.6	2,845.9	2,822.7	23.26	122.376		
7,700.0	7,505.1	7,746.8	7,530.0	15.5	28.4	7.27	-2,877.9	-514.7	2,799.3	2,778.0	21.33	131.217		
7,750.0	7,518.9	7,763.6	7,546.8	15.7	28.5	11.59	-2,877.9	-514.8	2,751.4	2,731.4	19.95	137.931		
7,800.0	7,528.5	7,775.2	7,558.4	15.9	28.5	20.48	-2,877.9	-514.9	2,702.4	2,682.4	19.94	135.547		
7,850.0	7,533.9	7,781.5	7,564.8	16.2	28.5	45.57	-2,877.9	-514.9	2,652.7	2,628.6	24.17	109.735		
7,886.2	7,535.0	7,782.8	7,566.0	16.4	28.5	91.30	-2,877.9	-514.9	2,616.7	2,588.7	27.94	93.647		
7,900.0	7,535.0	7,782.8	7,566.0	16.5	28.5	91.29	-2,877.9	-514.9	2,602.9	2,574.8	28.05	92.809		
8,000.0	7,535.0	7,782.6	7,565.8	17.2	28.5	91.22	-2,877.9	-514.9	2,503.1	2,474.2	28.89	86.650		
8,100.0	7,535.0	7,782.3	7,565.6	18.1	28.5	91.14	-2,877.9	-514.9	2,403.4	2,373.5	29.87	80.448		
8,200.0	7,535.0	7,782.1	7,565.3	19.1	28.5	91.07	-2,877.9	-514.9	2,303.7	2,272.7	30.98	74.353		
8,300.0	7,535.0	7,781.9	7,565.1	20.2	28.5	91.00	-2,877.9	-514.9	2,204.0	2,171.8	32.19	68.468		
8,400.0	7,535.0	7,781.7	7,564.9	21.4	28.5	90.93	-2,877.9	-514.9	2,104.3	2,070.8	33.48	62.856		
8,500.0	7,535.0	7,781.5	7,564.7	22.7	28.5	90.87	-2,877.9	-514.9	2,004.7	1,969.9	34.83	57.551		
8,600.0	7,535.0	7,781.3	7,564.5	24.0	28.5	90.80	-2,877.9	-514.9	1,905.1	1,868.9	36.24	52.565		
8,700.0	7,535.0	7,781.1	7,564.3	25.4	28.5	90.73	-2,877.9	-514.9	1,805.6	1,767.9	37.70	47.895		
8,800.0	7,535.0	7,780.9	7,564.1	26.9	28.5	90.67	-2,877.9	-514.9	1,706.1	1,666.9	39.19	43.533		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Olive) - Olive 13-26. - DD - DD												Offset Site Error:	0.0 ft
Survey Program: 1179-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
8,900.0	7,535.0	7,780.7	7,563.9	28.3	28.5	90.60	-2,877.9	-514.9	1,606.7	1,565.9	40.71	39.461	
9,000.0	7,535.0	7,780.5	7,563.7	29.8	28.5	90.54	-2,877.9	-514.9	1,507.3	1,465.0	42.27	35.663	
9,100.0	7,535.0	7,780.3	7,563.5	31.3	28.5	90.48	-2,877.9	-514.9	1,408.1	1,364.2	43.84	32.119	
9,200.0	7,535.0	7,780.1	7,563.3	32.9	28.5	90.41	-2,877.9	-514.9	1,308.9	1,263.5	45.43	28.812	
9,300.0	7,535.0	7,779.9	7,563.1	34.4	28.5	90.35	-2,877.9	-514.9	1,209.9	1,162.9	47.04	25.722	
9,400.0	7,535.0	7,779.7	7,562.9	36.0	28.5	90.29	-2,877.9	-514.9	1,111.1	1,062.4	48.66	22.833	
9,500.0	7,535.0	7,779.5	7,562.7	37.6	28.5	90.23	-2,877.9	-514.9	1,012.5	962.2	50.30	20.131	
9,600.0	7,535.0	7,779.3	7,562.6	39.2	28.5	90.18	-2,877.9	-514.9	914.2	862.3	51.94	17.601	
9,700.0	7,535.0	7,779.2	7,562.4	40.9	28.5	90.12	-2,877.9	-514.9	816.4	762.8	53.60	15.232	
9,800.0	7,535.0	7,779.0	7,562.2	42.5	28.5	90.06	-2,877.9	-514.9	719.1	663.8	55.26	13.013	
9,900.0	7,535.0	7,778.8	7,562.0	44.1	28.5	90.01	-2,877.9	-514.9	622.7	565.8	56.93	10.938	
10,000.0	7,535.0	7,778.6	7,561.9	45.8	28.5	89.95	-2,877.9	-514.9	527.6	469.0	58.61	9.003	
10,100.0	7,535.0	7,778.5	7,561.7	47.4	28.5	89.90	-2,877.9	-514.9	434.8	374.5	60.29	7.211	
10,200.0	7,535.0	7,778.3	7,561.5	49.1	28.5	89.84	-2,877.9	-514.9	345.9	283.9	61.98	5.581	
10,300.0	7,535.0	7,778.1	7,561.4	50.8	28.5	89.79	-2,877.9	-514.9	265.1	201.5	63.67	4.164	
10,400.0	7,535.0	7,778.0	7,561.2	52.5	28.5	89.74	-2,877.9	-514.9	202.3	137.0	65.36	3.095	
10,496.8	7,535.0	7,777.8	7,561.0	54.1	28.5	89.69	-2,877.9	-514.9	177.7	110.6	67.01	2.651 CC	
10,500.0	7,535.0	7,777.8	7,561.0	54.1	28.5	89.68	-2,877.9	-514.9	177.7	110.6	67.06	2.649 ES, SF	
10,600.0	7,535.0	7,777.7	7,560.9	55.8	28.5	89.63	-2,877.9	-514.9	205.5	136.7	68.77	2.988	
10,700.0	7,535.0	7,777.5	7,560.7	57.5	28.5	89.58	-2,877.9	-514.9	269.9	199.4	70.47	3.830	
10,800.0	7,535.0	7,777.3	7,560.6	59.2	28.5	89.53	-2,877.9	-514.9	351.4	279.2	72.18	4.868	
10,900.0	7,535.0	7,777.2	7,560.4	60.9	28.5	89.48	-2,877.9	-514.9	440.6	366.7	73.90	5.962	
11,000.0	7,535.0	7,777.0	7,560.3	62.6	28.5	89.44	-2,877.9	-514.9	533.6	458.0	75.61	7.058	
11,100.0	7,535.0	7,776.9	7,560.1	64.3	28.5	89.39	-2,877.9	-514.9	628.8	551.5	77.33	8.132	
11,200.0	7,535.0	7,776.8	7,560.0	66.0	28.5	89.34	-2,877.9	-514.9	725.3	646.2	79.05	9.176	
11,300.0	7,535.0	7,776.6	7,559.8	67.7	28.5	89.29	-2,877.9	-514.9	822.6	741.8	80.77	10.185	
11,400.0	7,535.0	7,776.5	7,559.7	69.4	28.5	89.25	-2,877.9	-514.9	920.5	838.0	82.49	11.159	
11,496.2	7,535.0	7,776.3	7,559.5	71.1	28.5	89.20	-2,877.9	-514.9	1,015.0	930.9	84.15	12.063	
11,500.0	7,535.0	7,776.3	7,559.5	71.2	28.5	89.20	-2,877.9	-514.9	1,018.8	934.6	84.21	12.098	
11,600.0	7,535.0	7,776.2	7,559.4	72.9	28.5	89.16	-2,877.9	-514.9	1,117.4	1,031.5	85.94	13.003	
11,700.0	7,535.0	7,776.0	7,559.3	74.6	28.5	89.11	-2,877.9	-514.9	1,216.2	1,128.6	87.66	13.874	
11,800.0	7,535.0	7,775.9	7,559.1	76.3	28.5	89.07	-2,877.9	-514.9	1,315.2	1,225.9	89.39	14.714	
11,900.0	7,535.0	7,775.8	7,559.0	78.0	28.5	89.03	-2,877.9	-514.9	1,414.4	1,323.3	91.12	15.523	
12,000.0	7,535.0	7,775.6	7,558.9	79.7	28.5	88.98	-2,877.9	-514.9	1,513.7	1,420.8	92.85	16.302	
12,100.0	7,535.0	7,775.5	7,558.7	81.5	28.5	88.94	-2,877.9	-514.9	1,613.0	1,518.4	94.58	17.055	
12,200.0	7,535.0	7,775.4	7,558.6	83.2	28.5	88.90	-2,877.9	-514.9	1,712.4	1,616.1	96.31	17.780	
12,296.2	7,535.0	7,775.3	7,558.5	84.9	28.5	88.86	-2,877.9	-514.9	1,808.1	1,710.1	97.98	18.455	
12,300.0	7,535.0	7,775.3	7,558.5	84.9	28.5	88.87	-2,877.9	-514.9	1,811.9	1,713.9	98.05	18.479	
12,400.0	7,535.0	7,775.1	7,558.3	86.6	28.5	89.14	-2,877.9	-514.9	1,911.3	1,811.2	100.02	19.109	
12,492.9	7,535.0	7,775.0	7,558.3	88.3	28.5	89.30	-2,877.9	-514.9	2,003.3	1,901.4	101.82	19.675	
12,500.0	7,535.0	7,775.0	7,558.2	88.4	28.5	89.30	-2,877.9	-514.9	2,010.3	1,908.3	101.94	19.720	
12,600.0	7,535.0	7,774.9	7,558.2	90.1	28.5	89.28	-2,877.9	-514.9	2,109.1	2,005.5	103.67	20.344	
12,700.0	7,535.0	7,774.9	7,558.1	91.9	28.5	89.27	-2,877.9	-514.9	2,208.1	2,102.7	105.41	20.948	
12,800.0	7,535.0	7,774.8	7,558.0	93.6	28.5	89.25	-2,877.9	-514.9	2,307.2	2,200.0	107.15	21.533	
12,900.0	7,535.0	7,774.7	7,557.9	95.3	28.5	89.23	-2,877.9	-514.9	2,406.3	2,297.4	108.88	22.100	
13,000.0	7,535.0	7,774.6	7,557.8	97.1	28.5	89.22	-2,877.9	-514.9	2,505.5	2,394.9	110.62	22.649	
13,100.0	7,535.0	7,774.5	7,557.7	98.8	28.5	89.20	-2,877.9	-514.9	2,604.8	2,492.5	112.36	23.182	
13,200.0	7,535.0	7,774.4	7,557.6	100.5	28.5	89.18	-2,877.9	-514.9	2,704.1	2,590.0	114.10	23.699	
13,300.0	7,535.0	7,774.3	7,557.5	102.3	28.5	89.17	-2,877.9	-514.9	2,803.5	2,687.7	115.84	24.201	
13,400.0	7,535.0	7,774.2	7,557.5	104.0	28.5	89.15	-2,877.9	-514.9	2,902.9	2,785.4	117.58	24.689	
13,500.0	7,535.0	7,774.2	7,557.4	105.8	28.5	89.14	-2,877.9	-514.9	3,002.4	2,883.1	119.32	25.162	
13,600.0	7,535.0	7,774.1	7,557.3	107.5	28.5	89.12	-2,877.9	-514.9	3,101.9	2,980.8	121.06	25.622	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Olive) - Olive 13-26. - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 1179-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		
13,700.0	7,535.0	7,774.0	7,557.2	109.3	28.5	89.11	-2,877.9	-514.9	3,201.4	3,078.6	122.81	26.069		
13,800.0	7,535.0	7,773.9	7,557.1	111.0	28.5	89.09	-2,877.9	-514.9	3,301.0	3,176.4	124.55	26.504		
13,900.0	7,535.0	7,773.8	7,557.1	112.7	28.5	89.08	-2,877.9	-514.9	3,400.5	3,274.2	126.29	26.926		
14,000.0	7,535.0	7,773.8	7,557.0	114.5	28.5	89.06	-2,877.9	-514.9	3,500.1	3,372.1	128.03	27.338		
14,100.0	7,535.0	7,773.7	7,556.9	116.2	28.5	89.05	-2,877.9	-514.9	3,599.8	3,470.0	129.78	27.738		
14,200.0	7,535.0	7,773.6	7,556.8	118.0	28.5	89.03	-2,877.9	-514.9	3,699.4	3,567.9	131.52	28.128		
14,300.0	7,535.0	7,773.5	7,556.8	119.7	28.5	89.02	-2,877.9	-514.9	3,799.1	3,665.8	133.26	28.508		
14,400.0	7,535.0	7,773.5	7,556.7	121.5	28.5	89.01	-2,877.9	-514.9	3,898.7	3,763.7	135.01	28.878		
14,500.0	7,535.0	7,773.4	7,556.6	123.2	28.5	88.99	-2,877.9	-514.9	3,998.4	3,861.7	136.75	29.239		
14,600.0	7,535.0	7,773.3	7,556.5	124.9	28.5	88.98	-2,877.9	-514.9	4,098.2	3,959.7	138.50	29.590		
14,672.4	7,535.0	7,773.3	7,556.5	126.2	28.5	88.97	-2,877.9	-514.9	4,170.3	4,030.6	139.76	29.839		
14,672.9	7,535.0	7,773.3	7,556.5	126.2	28.5	88.97	-2,877.9	-514.9	4,170.8	4,031.1	139.77	29.841		





# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Olive) - Olive 13-26. - DD - Plan #1													Offset Site Error: 0.0 ft			
Survey Program: 0-MWD															Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor				
0.0	0.0	27.0	27.0	0.0	0.0	163.30	-2,834.1	850.3	2,958.9							
100.0	100.0	127.0	127.0	0.2	0.2	163.30	-2,834.1	850.3	2,958.9	2,958.5	0.35	8,561.754				
200.0	200.0	227.0	227.0	0.3	0.4	163.30	-2,834.1	850.3	2,958.9	2,958.2	0.69	4,259.477				
300.0	300.0	327.0	327.0	0.5	0.5	163.30	-2,834.1	850.3	2,958.9	2,957.8	1.04	2,834.928				
400.0	400.0	427.0	427.0	0.7	0.7	163.30	-2,834.1	850.3	2,958.9	2,957.5	1.39	2,124.429				
500.0	500.0	527.0	527.0	0.8	0.9	163.30	-2,834.1	850.3	2,958.9	2,957.1	1.74	1,698.696				
600.0	600.0	627.0	627.0	1.0	1.1	163.30	-2,834.1	850.3	2,958.9	2,956.8	2.09	1,415.110				
700.0	700.0	727.0	727.0	1.2	1.2	163.30	-2,834.1	850.3	2,958.9	2,956.4	2.44	1,212.664				
800.0	800.0	827.0	827.0	1.4	1.4	163.30	-2,834.1	850.3	2,958.9	2,956.1	2.79	1,060.892				
900.0	900.0	927.0	927.0	1.5	1.6	163.30	-2,834.1	850.3	2,958.9	2,955.7	3.14	942.885				
1,000.0	1,000.0	1,027.0	1,027.0	1.7	1.8	163.30	-2,834.1	850.3	2,958.9	2,955.4	3.49	848.502				
1,100.0	1,100.0	1,155.9	1,155.9	1.9	2.0	163.34	-2,834.1	848.4	2,958.5	2,954.6	3.89	760.999				
1,200.0	1,200.0	1,293.0	1,292.7	2.1	2.2	-144.29	-2,834.3	840.0	2,957.6	2,953.3	4.31	685.676				
1,300.0	1,300.0	1,429.3	1,428.2	2.2	2.5	-144.06	-2,834.7	825.3	2,956.9	2,952.1	4.77	619.654				
1,400.0	1,399.9	1,564.4	1,561.6	2.4	2.9	-143.74	-2,835.2	804.3	2,956.4	2,951.2	5.28	559.591				
1,500.0	1,499.7	1,697.9	1,692.4	2.6	3.3	-143.32	-2,835.8	777.4	2,956.3	2,950.4	5.86	504.057				
1,505.7	1,505.4	1,705.5	1,699.8	2.6	3.3	-143.30	-2,835.9	775.7	2,956.3	2,950.4	5.90	500.891				
1,600.0	1,599.4	1,819.9	1,810.7	2.8	3.8	-142.87	-2,836.5	747.7	2,956.5	2,950.0	6.50	455.031				
1,619.7	1,619.0	1,839.2	1,829.4	2.8	3.8	-142.80	-2,836.6	742.7	2,956.7	2,950.1	6.61	447.379				
1,700.0	1,699.0	1,918.0	1,905.5	3.0	4.2	-142.50	-2,837.1	722.6	2,957.5	2,950.5	7.07	418.286				
1,800.0	1,798.5	2,016.0	2,000.3	3.2	4.6	-142.13	-2,837.7	697.5	2,958.7	2,951.0	7.66	386.058				
1,900.0	1,898.1	2,114.1	2,095.1	3.4	5.0	-141.76	-2,838.3	672.4	2,960.0	2,951.7	8.27	357.823				
2,000.0	1,997.7	2,212.2	2,189.9	3.6	5.4	-141.39	-2,838.9	647.3	2,961.5	2,952.6	8.89	333.016				
2,100.0	2,097.3	2,310.3	2,284.7	3.9	5.9	-141.02	-2,839.5	622.2	2,963.0	2,953.5	9.52	311.137				
2,200.0	2,196.9	2,408.3	2,379.5	4.1	6.3	-140.65	-2,840.1	597.2	2,964.7	2,954.6	10.16	291.751				
2,300.0	2,296.5	2,506.4	2,474.4	4.3	6.8	-140.28	-2,840.7	572.1	2,966.6	2,955.7	10.81	274.493				
2,400.0	2,396.1	2,604.5	2,569.2	4.5	7.2	-139.91	-2,841.3	547.0	2,968.5	2,957.0	11.46	259.057				
2,500.0	2,495.7	2,702.5	2,664.0	4.7	7.7	-139.54	-2,841.9	521.9	2,970.6	2,958.5	12.12	245.189				
2,600.0	2,595.3	2,800.6	2,758.8	5.0	8.2	-139.18	-2,842.5	496.8	2,972.8	2,960.0	12.78	232.673				
2,700.0	2,694.8	2,898.7	2,853.6	5.2	8.6	-138.81	-2,843.1	471.7	2,975.1	2,961.7	13.44	221.332				
2,800.0	2,794.4	2,996.8	2,948.4	5.4	9.1	-138.44	-2,843.7	446.6	2,977.6	2,963.5	14.11	211.015				
2,900.0	2,894.0	3,094.8	3,043.2	5.6	9.6	-138.08	-2,844.3	421.6	2,980.2	2,965.4	14.78	201.597				
3,000.0	2,993.6	3,192.9	3,138.0	5.9	10.0	-137.71	-2,844.9	396.5	2,982.9	2,967.4	15.46	192.969				
3,100.0	3,093.2	3,291.0	3,232.8	6.1	10.5	-137.35	-2,845.5	371.4	2,985.7	2,969.6	16.14	185.040				
3,200.0	3,192.8	3,389.0	3,327.6	6.3	11.0	-136.99	-2,846.1	346.3	2,988.7	2,971.9	16.82	177.731				
3,300.0	3,292.4	3,487.1	3,422.4	6.5	11.5	-136.62	-2,846.7	321.2	2,991.8	2,974.3	17.50	170.977				
3,400.0	3,392.0	3,585.2	3,517.2	6.8	11.9	-136.26	-2,847.3	296.1	2,995.0	2,976.8	18.18	164.717				
3,500.0	3,491.6	3,683.3	3,612.0	7.0	12.4	-135.90	-2,847.9	271.1	2,998.3	2,979.5	18.87	158.901				
3,600.0	3,591.1	3,781.3	3,706.9	7.2	12.9	-135.54	-2,848.5	246.0	3,001.8	2,982.2	19.56	153.487				
3,700.0	3,690.7	3,879.4	3,801.7	7.5	13.4	-135.18	-2,849.1	220.9	3,005.4	2,985.1	20.25	148.434				
3,800.0	3,790.3	3,977.5	3,896.5	7.7	13.8	-134.82	-2,849.7	195.8	3,009.1	2,988.1	20.94	143.710				
3,900.0	3,889.9	4,075.5	3,991.3	7.9	14.3	-134.46	-2,850.3	170.7	3,012.9	2,991.3	21.63	139.285				
4,000.0	3,989.5	4,173.6	4,086.1	8.2	14.8	-134.10	-2,850.9	145.6	3,016.8	2,994.5	22.33	135.132				
4,100.0	4,089.1	4,271.7	4,180.9	8.4	15.3	-133.75	-2,851.5	120.6	3,020.9	2,997.9	23.02	131.228				
4,200.0	4,188.7	4,369.8	4,275.7	8.6	15.7	-133.39	-2,852.1	95.5	3,025.1	3,001.4	23.72	127.551				
4,300.0	4,288.3	4,467.8	4,370.5	8.9	16.2	-133.04	-2,852.7	70.4	3,029.4	3,005.0	24.41	124.085				
4,400.0	4,387.9	4,565.9	4,465.3	9.1	16.7	-132.68	-2,853.3	45.3	3,033.8	3,008.7	25.11	120.811				
4,500.0	4,487.4	4,664.0	4,560.1	9.3	17.2	-132.33	-2,853.9	20.2	3,038.4	3,012.6	25.81	117.715				
4,600.0	4,587.0	4,762.1	4,654.9	9.6	17.7	-131.98	-2,854.5	-4.9	3,043.1	3,016.6	26.51	114.783				
4,700.0	4,686.6	4,860.1	4,749.7	9.8	18.1	-131.63	-2,855.1	-30.0	3,047.9	3,020.6	27.21	112.004				
4,800.0	4,786.2	4,958.2	4,844.5	10.0	18.6	-131.28	-2,855.7	-55.0	3,052.8	3,024.8	27.91	109.366				
4,900.0	4,885.8	5,056.3	4,939.4	10.3	19.1	-130.93	-2,856.3	-80.1	3,057.8	3,029.2	28.61	106.860				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Olive) - Olive 13-26. - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
5,000.0	4,985.4	5,154.3	5,034.2	10.5	19.6	-130.58	-2,856.9	-105.2	3,062.9	3,033.6	29.32	104.475		
5,100.0	5,085.0	5,252.4	5,129.0	10.7	20.1	-130.24	-2,857.5	-130.3	3,068.2	3,038.2	30.02	102.205		
5,200.0	5,184.6	5,350.5	5,223.8	11.0	20.5	-129.89	-2,858.1	-155.4	3,073.5	3,042.8	30.72	100.041		
5,300.0	5,284.2	5,448.6	5,318.6	11.2	21.0	-129.55	-2,858.7	-180.5	3,079.0	3,047.6	31.43	97.977		
5,400.0	5,383.7	5,546.6	5,413.4	11.4	21.5	-129.21	-2,859.3	-205.5	3,084.6	3,052.5	32.13	96.006		
5,500.0	5,483.3	5,644.7	5,508.2	11.7	22.0	-128.87	-2,859.9	-230.6	3,090.3	3,057.5	32.83	94.122		
5,600.0	5,582.9	5,742.8	5,603.0	11.9	22.5	-128.53	-2,860.6	-255.7	3,096.2	3,062.6	33.54	92.321		
5,700.0	5,682.5	5,840.8	5,697.8	12.1	22.9	-128.19	-2,861.2	-280.8	3,102.1	3,067.9	34.24	90.597		
5,800.0	5,782.1	5,938.9	5,792.6	12.4	23.4	-127.85	-2,861.8	-305.9	3,108.1	3,073.2	34.94	88.945		
5,900.0	5,881.7	6,037.0	5,887.4	12.6	23.9	-127.51	-2,862.4	-331.0	3,114.3	3,078.7	35.65	87.362		
6,000.0	5,981.3	6,135.1	5,982.2	12.8	24.4	-127.18	-2,863.0	-356.0	3,120.6	3,084.2	36.35	85.843		
6,100.0	6,080.9	6,233.1	6,077.0	13.1	24.9	-126.85	-2,863.6	-381.1	3,126.9	3,089.9	37.06	84.386		
6,200.0	6,180.5	6,331.2	6,171.9	13.3	25.4	-126.51	-2,864.2	-406.2	3,133.4	3,095.7	37.76	82.986		
6,300.0	6,280.0	6,431.4	6,268.7	13.5	25.8	-126.18	-2,864.8	-431.6	3,140.0	3,101.6	38.45	81.660		
6,400.0	6,379.6	6,536.0	6,370.7	13.8	26.3	-125.89	-2,865.3	-455.2	3,146.5	3,107.4	39.10	80.471		
6,500.0	6,479.2	6,641.8	6,474.5	14.0	26.6	-125.66	-2,865.8	-475.2	3,152.9	3,113.2	39.69	79.438		
6,600.0	6,578.8	6,748.3	6,579.8	14.2	26.9	-125.51	-2,866.2	-491.5	3,159.1	3,118.9	40.22	78.552		
6,700.0	6,678.4	6,855.4	6,686.1	14.5	27.2	-125.43	-2,866.5	-503.9	3,165.1	3,124.4	40.68	77.804		
6,800.0	6,778.0	6,962.6	6,793.1	14.7	27.4	-125.42	-2,866.7	-512.3	3,170.9	3,129.8	41.08	77.185		
6,900.0	6,877.6	7,069.8	6,900.2	14.9	27.5	-125.48	-2,866.8	-516.7	3,176.4	3,135.0	41.42	76.689		
6,953.0	6,930.4	7,126.5	6,956.9	15.1	27.5	-125.54	-2,866.8	-517.5	3,179.3	3,137.7	41.58	76.456		
7,000.0	6,977.2	7,173.9	7,004.2	15.1	27.6	-67.05	-2,866.8	-517.5	3,179.8	3,138.1	41.72	76.210		
7,050.0	7,027.0	7,223.6	7,054.0	15.2	27.6	-28.30	-2,866.8	-517.5	3,176.2	3,134.6	41.61	76.337		
7,100.0	7,076.2	7,272.9	7,103.2	15.2	27.7	-15.63	-2,866.8	-517.5	3,168.3	3,127.1	41.22	76.869		
7,150.0	7,124.6	7,321.3	7,151.7	15.3	27.7	-10.00	-2,866.8	-517.5	3,156.1	3,115.5	40.56	77.818		
7,200.0	7,171.8	7,368.5	7,198.8	15.2	27.7	-6.85	-2,866.8	-517.5	3,139.7	3,100.1	39.64	79.211		
7,250.0	7,217.4	7,414.1	7,244.4	15.2	27.8	-4.81	-2,866.8	-517.5	3,119.3	3,080.9	38.47	81.089		
7,300.0	7,261.1	7,457.7	7,288.1	15.2	27.8	-3.34	-2,866.8	-517.5	3,095.0	3,058.0	37.06	83.504		
7,350.0	7,302.5	7,499.1	7,329.5	15.2	27.8	-2.18	-2,866.8	-517.5	3,067.0	3,031.6	35.45	86.529		
7,400.0	7,341.3	7,538.0	7,368.3	15.1	27.9	-1.17	-2,866.8	-517.5	3,035.6	3,001.9	33.63	90.251		
7,450.0	7,377.2	7,573.9	7,404.2	15.1	27.9	-0.23	-2,866.8	-517.5	3,000.8	2,969.2	31.66	94.780		
7,500.0	7,410.0	7,606.7	7,437.0	15.1	27.9	0.73	-2,866.8	-517.5	2,963.1	2,933.5	29.56	100.236		
7,550.0	7,439.4	7,636.1	7,466.4	15.2	27.9	1.81	-2,866.8	-517.5	2,922.7	2,895.3	27.38	106.737		
7,600.0	7,465.2	7,661.8	7,492.2	15.2	28.0	3.13	-2,866.8	-517.5	2,879.8	2,854.7	25.19	114.339		
7,650.0	7,487.1	7,683.8	7,514.1	15.3	28.0	4.88	-2,866.8	-517.5	2,835.0	2,811.9	23.07	122.890		
7,700.0	7,505.1	7,701.8	7,532.1	15.5	28.0	7.48	-2,866.8	-517.5	2,788.3	2,767.2	21.18	131.634		
7,750.0	7,518.9	7,715.6	7,545.9	15.7	28.0	11.83	-2,866.8	-517.5	2,740.4	2,720.5	19.84	138.134		
7,800.0	7,528.5	7,725.2	7,555.6	15.9	28.0	20.71	-2,866.8	-517.5	2,691.4	2,671.5	19.87	135.432		
7,850.0	7,533.9	7,730.5	7,560.9	16.2	28.0	45.40	-2,866.8	-517.5	2,641.8	2,617.7	24.06	109.783		
7,886.2	7,535.0	7,731.7	7,562.0	16.4	28.0	90.00	-2,866.8	-517.5	2,605.7	2,577.8	27.90	93.379		
7,900.0	7,535.0	7,731.7	7,562.0	16.5	28.0	90.00	-2,866.8	-517.5	2,591.9	2,563.9	28.01	92.542		
8,000.0	7,535.0	7,731.7	7,562.0	17.2	28.0	90.00	-2,866.8	-517.5	2,492.2	2,463.3	28.85	86.392		
8,100.0	7,535.0	7,731.7	7,562.0	18.1	28.0	90.00	-2,866.8	-517.5	2,392.4	2,362.6	29.83	80.198		
8,200.0	7,535.0	7,731.7	7,562.0	19.1	28.0	90.00	-2,866.8	-517.5	2,292.7	2,261.8	30.94	74.111		
8,300.0	7,535.0	7,731.7	7,562.0	20.2	28.0	90.00	-2,866.8	-517.5	2,193.0	2,160.9	32.14	68.233		
8,400.0	7,535.0	7,731.7	7,562.0	21.4	28.0	90.00	-2,866.8	-517.5	2,093.4	2,060.0	33.43	62.627		
8,500.0	7,535.0	7,731.7	7,562.0	22.7	28.0	90.00	-2,866.8	-517.5	1,993.8	1,959.0	34.78	57.328		
8,600.0	7,535.0	7,731.7	7,562.0	24.0	28.0	90.00	-2,866.8	-517.5	1,894.2	1,858.0	36.19	52.346		
8,700.0	7,535.0	7,731.7	7,562.0	25.4	28.0	90.00	-2,866.8	-517.5	1,794.7	1,757.1	37.64	47.682		
8,800.0	7,535.0	7,731.7	7,562.0	26.9	28.0	90.00	-2,866.8	-517.5	1,695.2	1,656.1	39.13	43.324		
8,900.0	7,535.0	7,731.7	7,562.0	28.3	28.0	90.00	-2,866.8	-517.5	1,595.8	1,555.2	40.65	39.257		
9,000.0	7,535.0	7,731.7	7,562.0	29.8	28.0	90.00	-2,866.8	-517.5	1,496.5	1,454.3	42.20	35.463		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Olive) - Olive 13-26. - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,100.0	7,535.0	7,731.7	7,562.0	31.3	28.0	90.00	-2,866.8	-517.5	1,397.3	1,353.5	43.77	31.923		
9,200.0	7,535.0	7,731.7	7,562.0	32.9	28.0	90.00	-2,866.8	-517.5	1,298.2	1,252.8	45.36	28.619		
9,300.0	7,535.0	7,731.7	7,562.0	34.4	28.0	90.00	-2,866.8	-517.5	1,199.2	1,152.3	46.97	25.533		
9,400.0	7,535.0	7,731.7	7,562.0	36.0	28.0	90.00	-2,866.8	-517.5	1,100.5	1,051.9	48.59	22.649		
9,500.0	7,535.0	7,731.7	7,562.0	37.6	28.0	90.00	-2,866.8	-517.5	1,001.9	951.7	50.22	19.951		
9,600.0	7,535.0	7,731.7	7,562.0	39.2	28.0	90.00	-2,866.8	-517.5	903.7	851.9	51.86	17.425		
9,700.0	7,535.0	7,731.7	7,562.0	40.9	28.0	90.00	-2,866.8	-517.5	806.0	752.5	53.52	15.060		
9,800.0	7,535.0	7,731.7	7,562.0	42.5	28.0	90.00	-2,866.8	-517.5	708.9	653.7	55.18	12.847		
9,900.0	7,535.0	7,731.7	7,562.0	44.1	28.0	90.00	-2,866.8	-517.5	612.7	555.8	56.85	10.777		
10,000.0	7,535.0	7,731.7	7,562.0	45.8	28.0	90.00	-2,866.8	-517.5	517.9	459.4	58.52	8.849		
10,100.0	7,535.0	7,731.7	7,562.0	47.4	28.0	90.00	-2,866.8	-517.5	425.5	365.3	60.20	7.068		
10,200.0	7,535.0	7,731.7	7,562.0	49.1	28.0	90.00	-2,866.8	-517.5	337.6	275.7	61.89	5.454		
10,300.0	7,535.0	7,731.7	7,562.0	50.8	28.0	90.00	-2,866.8	-517.5	258.5	194.9	63.58	4.066		
10,400.0	7,535.0	7,731.7	7,562.0	52.5	28.0	90.00	-2,866.8	-517.5	199.2	133.9	65.28	3.052		
10,485.7	7,535.0	7,731.7	7,562.0	53.9	28.0	90.00	-2,866.8	-517.5	179.9	113.1	66.73	2.695 CC, ES		
10,500.0	7,535.0	7,731.7	7,562.0	54.1	28.0	90.00	-2,866.8	-517.5	180.4	113.5	66.98	2.694 SF		
10,600.0	7,535.0	7,731.7	7,562.0	55.8	28.0	90.00	-2,866.8	-517.5	213.1	144.5	68.68	3.103		
10,700.0	7,535.0	7,731.7	7,562.0	57.5	28.0	90.00	-2,866.8	-517.5	279.8	209.4	70.38	3.975		
10,800.0	7,535.0	7,731.7	7,562.0	59.2	28.0	90.00	-2,866.8	-517.5	362.2	290.1	72.09	5.023		
10,900.0	7,535.0	7,731.7	7,562.0	60.9	28.0	90.00	-2,866.8	-517.5	451.7	377.9	73.80	6.120		
11,000.0	7,535.0	7,731.7	7,562.0	62.6	28.0	90.00	-2,866.8	-517.5	544.9	469.4	75.52	7.215		
11,100.0	7,535.0	7,731.7	7,562.0	64.3	28.0	90.00	-2,866.8	-517.5	640.1	562.9	77.23	8.288		
11,200.0	7,535.0	7,731.7	7,562.0	66.0	28.0	90.00	-2,866.8	-517.5	736.6	657.7	78.95	9.330		
11,300.0	7,535.0	7,731.7	7,562.0	67.7	28.0	90.00	-2,866.8	-517.5	834.0	753.3	80.67	10.338		
11,400.0	7,535.0	7,731.7	7,562.0	69.4	28.0	90.00	-2,866.8	-517.5	931.9	849.5	82.39	11.310		
11,496.2	7,535.0	7,731.7	7,562.0	71.1	28.0	90.00	-2,866.8	-517.5	1,026.4	942.3	84.05	12.212		
11,500.0	7,535.0	7,731.7	7,562.0	71.2	28.0	90.00	-2,866.8	-517.5	1,030.2	946.0	84.12	12.247		
11,600.0	7,535.0	7,731.7	7,562.0	72.9	28.0	90.00	-2,866.8	-517.5	1,128.8	1,042.9	85.84	13.149		
11,700.0	7,535.0	7,731.7	7,562.0	74.6	28.0	90.00	-2,866.8	-517.5	1,227.6	1,140.0	87.57	14.018		
11,800.0	7,535.0	7,731.7	7,562.0	76.3	28.0	90.00	-2,866.8	-517.5	1,326.6	1,237.3	89.30	14.856		
11,900.0	7,535.0	7,731.7	7,562.0	78.0	28.0	90.00	-2,866.8	-517.5	1,425.7	1,334.7	91.03	15.663		
12,000.0	7,535.0	7,731.7	7,562.0	79.7	28.0	90.00	-2,866.8	-517.5	1,525.0	1,432.2	92.76	16.441		
12,100.0	7,535.0	7,731.7	7,562.0	81.5	28.0	90.00	-2,866.8	-517.5	1,624.3	1,529.8	94.49	17.191		
12,200.0	7,535.0	7,731.7	7,562.0	83.2	28.0	90.00	-2,866.8	-517.5	1,723.7	1,627.5	96.22	17.915		
12,296.2	7,535.0	7,731.7	7,562.0	84.9	28.0	90.00	-2,866.8	-517.5	1,819.4	1,721.5	97.89	18.587		
12,300.0	7,535.0	7,731.7	7,562.0	84.9	28.0	90.00	-2,866.8	-517.5	1,823.2	1,725.3	97.96	18.612		
12,400.0	7,535.0	7,731.7	7,562.0	86.6	28.0	90.00	-2,866.8	-517.5	1,922.6	1,822.7	99.91	19.242		
12,492.9	7,535.0	7,731.7	7,562.0	88.3	28.0	90.00	-2,866.8	-517.5	2,014.6	1,912.9	101.69	19.810		
12,500.0	7,535.0	7,731.7	7,562.0	88.4	28.0	90.00	-2,866.8	-517.5	2,021.6	1,919.7	101.82	19.855		
12,600.0	7,535.0	7,731.7	7,562.0	90.1	28.0	90.00	-2,866.8	-517.5	2,120.4	2,016.9	103.55	20.477		
12,700.0	7,535.0	7,731.7	7,562.0	91.9	28.0	90.00	-2,866.8	-517.5	2,219.4	2,114.1	105.29	21.079		
12,800.0	7,535.0	7,731.7	7,562.0	93.6	28.0	90.00	-2,866.8	-517.5	2,318.5	2,211.4	107.03	21.663		
12,900.0	7,535.0	7,731.7	7,562.0	95.3	28.0	90.00	-2,866.8	-517.5	2,417.6	2,308.8	108.76	22.228		
13,000.0	7,535.0	7,731.7	7,562.0	97.1	28.0	90.00	-2,866.8	-517.5	2,516.8	2,406.3	110.50	22.776		
13,100.0	7,535.0	7,731.7	7,562.0	98.8	28.0	90.00	-2,866.8	-517.5	2,616.1	2,503.8	112.24	23.307		
13,200.0	7,535.0	7,731.7	7,562.0	100.5	28.0	90.00	-2,866.8	-517.5	2,715.4	2,601.4	113.98	23.823		
13,300.0	7,535.0	7,731.7	7,562.0	102.3	28.0	90.00	-2,866.8	-517.5	2,814.7	2,699.0	115.72	24.324		
13,400.0	7,535.0	7,731.7	7,562.0	104.0	28.0	90.00	-2,866.8	-517.5	2,914.2	2,796.7	117.46	24.809		
13,500.0	7,535.0	7,731.7	7,562.0	105.8	28.0	90.00	-2,866.8	-517.5	3,013.6	2,894.4	119.20	25.281		
13,600.0	7,535.0	7,731.7	7,562.0	107.5	28.0	90.00	-2,866.8	-517.5	3,113.1	2,992.1	120.94	25.740		
13,700.0	7,535.0	7,731.7	7,562.0	109.3	28.0	90.00	-2,866.8	-517.5	3,212.6	3,089.9	122.69	26.185		
13,800.0	7,535.0	7,731.7	7,562.0	111.0	28.0	90.00	-2,866.8	-517.5	3,312.2	3,187.7	124.43	26.619		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S26-T2N-R66W (Olive) - Olive 13-26. - DD - Plan #1		Offset Site Error:		0.0 ft
Survey Program: 0-MWD															Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor					
13,900.0	7,535.0	7,731.7	7,562.0	112.7	28.0	90.00	-2,866.8	-517.5	3,411.7	3,285.6	126.17	27.040					
14,000.0	7,535.0	7,731.7	7,562.0	114.5	28.0	90.00	-2,866.8	-517.5	3,511.3	3,383.4	127.92	27.450					
14,100.0	7,535.0	7,731.7	7,562.0	116.2	28.0	90.00	-2,866.8	-517.5	3,610.9	3,481.3	129.66	27.850					
14,200.0	7,535.0	7,731.7	7,562.0	118.0	28.0	90.00	-2,866.8	-517.5	3,710.6	3,579.2	131.40	28.238					
14,300.0	7,535.0	7,731.7	7,562.0	119.7	28.0	90.00	-2,866.8	-517.5	3,810.2	3,677.1	133.15	28.617					
14,400.0	7,535.0	7,731.7	7,562.0	121.5	28.0	90.00	-2,866.8	-517.5	3,909.9	3,775.0	134.89	28.986					
14,500.0	7,535.0	7,731.7	7,562.0	123.2	28.0	90.00	-2,866.8	-517.5	4,009.6	3,873.0	136.64	29.345					
14,600.0	7,535.0	7,731.7	7,562.0	124.9	28.0	90.00	-2,866.8	-517.5	4,109.3	3,970.9	138.38	29.695					
14,672.4	7,535.0	7,731.7	7,562.0	126.2	28.0	90.00	-2,866.8	-517.5	4,181.5	4,041.8	139.64	29.944					
14,672.9	7,535.0	7,731.7	7,562.0	126.2	28.0	90.00	-2,866.8	-517.5	4,182.0	4,042.3	139.65	29.945					



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Olive) - Olive 13-26. - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	27.0	27.0	0.0	0.0	163.30	-2,834.1	850.3	2,958.9					
100.0	100.0	127.0	127.0	0.2	0.2	163.30	-2,834.1	850.3	2,958.9	2,958.5	0.35	8,561.754		
200.0	200.0	227.0	227.0	0.3	0.4	163.30	-2,834.1	850.3	2,958.9	2,958.2	0.69	4,259.477		
300.0	300.0	327.0	327.0	0.5	0.5	163.30	-2,834.1	850.3	2,958.9	2,957.8	1.04	2,834.928		
400.0	400.0	427.0	427.0	0.7	0.7	163.30	-2,834.1	850.3	2,958.9	2,957.5	1.39	2,124.429		
500.0	500.0	527.0	527.0	0.8	0.9	163.30	-2,834.1	850.3	2,958.9	2,957.1	1.74	1,698.696		
600.0	600.0	627.0	627.0	1.0	1.1	163.30	-2,834.1	850.3	2,958.9	2,956.8	2.09	1,415.110		
700.0	700.0	727.0	727.0	1.2	1.2	163.30	-2,834.1	850.3	2,958.9	2,956.4	2.44	1,212.664		
800.0	800.0	827.0	827.0	1.4	1.4	163.30	-2,834.1	850.3	2,958.9	2,956.1	2.79	1,060.892		
900.0	900.0	927.0	927.0	1.5	1.6	163.30	-2,834.1	850.3	2,958.9	2,955.7	3.14	942.885		
1,000.0	1,000.0	1,027.0	1,027.0	1.7	1.8	163.30	-2,834.1	850.3	2,958.9	2,955.4	3.49	848.502		
1,100.0	1,100.0	1,127.0	1,127.0	1.9	1.9	163.30	-2,834.1	850.3	2,958.9	2,955.0	3.84	771.296		
1,200.0	1,200.0	1,227.0	1,227.0	2.1	2.1	-144.47	-2,834.1	850.3	2,959.6	2,955.4	4.19	707.173		
1,300.0	1,300.0	1,356.0	1,355.9	2.2	2.3	-144.46	-2,834.1	848.4	2,961.3	2,956.8	4.59	645.788		
1,400.0	1,399.9	1,493.4	1,493.1	2.4	2.6	-144.36	-2,834.3	840.0	2,963.3	2,958.3	5.01	591.420		
1,500.0	1,499.7	1,630.4	1,629.2	2.6	2.9	-144.17	-2,834.7	825.1	2,965.4	2,959.9	5.47	542.425		
1,600.0	1,599.4	1,766.3	1,763.5	2.8	3.2	-143.88	-2,835.2	803.9	2,967.7	2,961.7	5.97	496.752		
1,619.7	1,619.0	1,793.0	1,789.7	2.8	3.3	-143.81	-2,835.3	799.0	2,968.2	2,962.1	6.08	488.272		
1,700.0	1,699.0	1,900.9	1,895.3	3.0	3.6	-143.50	-2,835.8	776.7	2,969.8	2,963.3	6.55	453.237		
1,800.0	1,798.5	2,031.3	2,021.6	3.2	4.1	-143.03	-2,836.6	744.5	2,970.9	2,963.7	7.21	411.887		
1,900.0	1,898.1	2,129.1	2,115.9	3.4	4.5	-142.64	-2,837.2	718.4	2,971.6	2,963.8	7.79	381.330		
2,000.0	1,997.7	2,227.0	2,210.2	3.6	4.9	-142.25	-2,837.9	692.2	2,972.4	2,964.1	8.39	354.204		
2,100.0	2,097.3	2,324.8	2,304.5	3.9	5.4	-141.87	-2,838.5	666.1	2,973.4	2,964.4	9.01	330.086		
2,200.0	2,196.9	2,422.7	2,398.8	4.1	5.8	-141.48	-2,839.1	640.0	2,974.6	2,964.9	9.64	308.632		
2,300.0	2,296.5	2,520.5	2,493.1	4.3	6.2	-141.09	-2,839.7	613.8	2,975.9	2,965.6	10.28	289.507		
2,400.0	2,396.1	2,618.4	2,587.4	4.5	6.7	-140.70	-2,840.4	587.7	2,977.3	2,966.4	10.93	272.406		
2,500.0	2,495.7	2,716.2	2,681.7	4.7	7.2	-140.31	-2,841.0	561.6	2,978.9	2,967.3	11.59	257.063		
2,600.0	2,595.3	2,814.1	2,776.0	5.0	7.6	-139.93	-2,841.6	535.4	2,980.6	2,968.3	12.25	243.245		
2,700.0	2,694.8	2,911.9	2,870.2	5.2	8.1	-139.54	-2,842.2	509.3	2,982.4	2,969.5	12.92	230.756		
2,800.0	2,794.4	3,009.7	2,964.5	5.4	8.6	-139.15	-2,842.9	483.2	2,984.4	2,970.8	13.60	219.427		
2,900.0	2,894.0	3,107.6	3,058.8	5.6	9.1	-138.77	-2,843.5	457.0	2,986.6	2,972.3	14.28	209.114		
3,000.0	2,993.6	3,205.4	3,153.1	5.9	9.6	-138.38	-2,844.1	430.9	2,988.8	2,973.9	14.97	199.694		
3,100.0	3,093.2	3,303.3	3,247.4	6.1	10.0	-138.00	-2,844.7	404.8	2,991.3	2,975.6	15.66	191.063		
3,200.0	3,192.8	3,401.1	3,341.7	6.3	10.5	-137.61	-2,845.4	378.7	2,993.8	2,977.5	16.35	183.131		
3,300.0	3,292.4	3,499.0	3,436.0	6.5	11.0	-137.23	-2,846.0	352.5	2,996.5	2,979.5	17.04	175.820		
3,400.0	3,392.0	3,596.8	3,530.3	6.8	11.5	-136.85	-2,846.6	326.4	2,999.3	2,981.6	17.74	169.063		
3,500.0	3,491.6	3,694.7	3,624.6	7.0	12.0	-136.47	-2,847.2	300.3	3,002.3	2,983.9	18.44	162.804		
3,600.0	3,591.1	3,792.5	3,718.9	7.2	12.5	-136.09	-2,847.9	274.1	3,005.4	2,986.3	19.14	156.991		
3,700.0	3,690.7	3,890.4	3,813.2	7.5	13.0	-135.70	-2,848.5	248.0	3,008.7	2,988.8	19.85	151.580		
3,800.0	3,790.3	3,988.2	3,907.4	7.7	13.5	-135.33	-2,849.1	221.9	3,012.1	2,991.5	20.56	146.533		
3,900.0	3,889.9	4,086.1	4,001.7	7.9	14.0	-134.95	-2,849.7	195.7	3,015.6	2,994.3	21.26	141.816		
4,000.0	3,989.5	4,183.9	4,096.0	8.2	14.5	-134.57	-2,850.4	169.6	3,019.3	2,997.3	21.97	137.400		
4,100.0	4,089.1	4,281.8	4,190.3	8.4	14.9	-134.19	-2,851.0	143.5	3,023.1	3,000.4	22.69	133.257		
4,200.0	4,188.7	4,379.6	4,284.6	8.6	15.4	-133.82	-2,851.6	117.3	3,027.0	3,003.6	23.40	129.364		
4,300.0	4,288.3	4,477.4	4,378.9	8.9	15.9	-133.44	-2,852.2	91.2	3,031.1	3,007.0	24.11	125.701		
4,400.0	4,387.9	4,575.3	4,473.2	9.1	16.4	-133.07	-2,852.9	65.1	3,035.3	3,010.5	24.83	122.248		
4,500.0	4,487.4	4,673.1	4,567.5	9.3	16.9	-132.69	-2,853.5	39.0	3,039.6	3,014.1	25.55	118.989		
4,600.0	4,587.0	4,771.0	4,661.8	9.6	17.4	-132.32	-2,854.1	12.8	3,044.1	3,017.9	26.26	115.908		
4,700.0	4,686.6	4,868.8	4,756.1	9.8	17.9	-131.95	-2,854.7	-13.3	3,048.7	3,021.7	26.98	112.993		
4,800.0	4,786.2	4,966.7	4,850.4	10.0	18.4	-131.58	-2,855.4	-39.4	3,053.5	3,025.8	27.70	110.231		
4,900.0	4,885.8	5,064.5	4,944.6	10.3	18.9	-131.21	-2,856.0	-65.6	3,058.3	3,029.9	28.42	107.611		
5,000.0	4,985.4	5,162.4	5,038.9	10.5	19.4	-130.84	-2,856.6	-91.7	3,063.3	3,034.2	29.14	105.122		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Olive) - Olive 13-26. - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,085.0	5,260.2	5,133.2	10.7	19.9	-130.48	-2,857.2	-117.8	3,068.5	3,038.6	29.86	102.756		
5,200.0	5,184.6	5,358.1	5,227.5	11.0	20.4	-130.11	-2,857.9	-144.0	3,073.7	3,043.2	30.58	100.505		
5,300.0	5,284.2	5,455.9	5,321.8	11.2	20.9	-129.75	-2,858.5	-170.1	3,079.1	3,047.8	31.30	98.360		
5,400.0	5,383.7	5,553.8	5,416.1	11.4	21.4	-129.38	-2,859.1	-196.2	3,084.7	3,052.6	32.03	96.316		
5,500.0	5,483.3	5,651.6	5,510.4	11.7	21.9	-129.02	-2,859.8	-222.4	3,090.3	3,057.6	32.75	94.364		
5,600.0	5,582.9	5,749.5	5,604.7	11.9	22.4	-128.66	-2,860.4	-248.5	3,096.1	3,062.6	33.47	92.500		
5,700.0	5,682.5	5,847.3	5,699.0	12.1	22.9	-128.30	-2,861.0	-274.6	3,102.0	3,067.8	34.19	90.719		
5,800.0	5,782.1	5,945.1	5,793.3	12.4	23.4	-127.95	-2,861.6	-300.7	3,108.0	3,073.1	34.92	89.015		
5,900.0	5,881.7	6,043.0	5,887.6	12.6	23.9	-127.59	-2,862.3	-326.9	3,114.2	3,078.6	35.64	87.384		
6,000.0	5,981.3	6,140.8	5,981.8	12.8	24.4	-127.23	-2,862.9	-353.0	3,120.5	3,084.1	36.36	85.821		
6,100.0	6,080.9	6,238.7	6,076.1	13.1	24.9	-126.88	-2,863.5	-379.1	3,126.9	3,089.8	37.08	84.322		
6,200.0	6,180.5	6,336.5	6,170.4	13.3	25.4	-126.53	-2,864.1	-405.3	3,133.4	3,095.6	37.80	82.885		
6,300.0	6,280.0	6,438.3	6,268.7	13.5	25.9	-126.18	-2,864.8	-431.6	3,140.0	3,101.5	38.51	81.538		
6,400.0	6,379.6	6,543.0	6,370.7	13.8	26.3	-125.89	-2,865.3	-455.2	3,146.5	3,107.4	39.16	80.353		
6,500.0	6,479.2	6,648.7	6,474.5	14.0	26.7	-125.66	-2,865.8	-475.2	3,152.9	3,113.2	39.75	79.323		
6,600.0	6,578.8	6,755.3	6,579.8	14.2	27.0	-125.51	-2,866.2	-491.5	3,159.1	3,118.9	40.27	78.440		
6,700.0	6,678.4	6,862.3	6,686.1	14.5	27.2	-125.43	-2,866.5	-503.9	3,165.1	3,124.4	40.74	77.694		
6,800.0	6,778.0	6,969.6	6,793.1	14.7	27.4	-125.42	-2,866.7	-512.3	3,170.9	3,129.7	41.14	77.078		
6,900.0	6,877.6	7,076.8	6,900.2	14.9	27.5	-125.48	-2,866.8	-516.7	3,176.4	3,134.9	41.48	76.583		
6,953.0	6,930.4	7,133.5	6,956.9	15.1	27.6	-125.54	-2,866.8	-517.5	3,179.3	3,137.6	41.64	76.352		
7,000.0	6,977.2	7,180.9	7,004.2	15.1	27.6	-67.05	-2,866.8	-517.5	3,179.8	3,138.0	41.78	76.106		
7,050.0	7,027.0	7,230.6	7,054.0	15.2	27.7	-28.30	-2,866.8	-517.5	3,176.2	3,134.5	41.66	76.234		
7,100.0	7,076.2	7,279.9	7,103.2	15.2	27.7	-15.63	-2,866.8	-517.5	3,168.3	3,127.0	41.27	76.764		
7,150.0	7,124.6	7,328.3	7,151.7	15.3	27.7	-10.00	-2,866.8	-517.5	3,156.1	3,115.5	40.61	77.713		
7,200.0	7,171.8	7,375.4	7,198.8	15.2	27.8	-6.85	-2,866.8	-517.5	3,139.7	3,100.0	39.69	79.105		
7,250.0	7,217.4	7,421.0	7,244.4	15.2	27.8	-4.81	-2,866.8	-517.5	3,119.3	3,080.8	38.52	80.980		
7,300.0	7,261.1	7,464.7	7,288.1	15.2	27.9	-3.34	-2,866.8	-517.5	3,095.0	3,057.9	37.11	83.393		
7,350.0	7,302.5	7,506.1	7,329.5	15.2	27.9	-2.18	-2,866.8	-517.5	3,067.0	3,031.5	35.49	86.414		
7,400.0	7,341.3	7,544.9	7,368.3	15.1	27.9	-1.17	-2,866.8	-517.5	3,035.6	3,001.9	33.68	90.132		
7,450.0	7,377.2	7,580.9	7,404.2	15.1	28.0	-0.23	-2,866.8	-517.5	3,000.8	2,969.1	31.70	94.655		
7,500.0	7,410.0	7,613.6	7,437.0	15.1	28.0	0.73	-2,866.8	-517.5	2,963.1	2,933.5	29.60	100.106		
7,550.0	7,439.4	7,643.0	7,466.4	15.2	28.0	1.81	-2,866.8	-517.5	2,922.7	2,895.2	27.42	106.600		
7,600.0	7,465.2	7,668.8	7,492.2	15.2	28.0	3.13	-2,866.8	-517.5	2,879.8	2,854.6	25.22	114.193		
7,650.0	7,487.1	7,690.8	7,514.1	15.3	28.0	4.88	-2,866.8	-517.5	2,835.0	2,811.9	23.10	122.736		
7,700.0	7,505.1	7,708.7	7,532.1	15.5	28.1	7.48	-2,866.8	-517.5	2,788.3	2,767.1	21.21	131.474		
7,750.0	7,518.9	7,722.6	7,545.9	15.7	28.1	11.83	-2,866.8	-517.5	2,740.4	2,720.5	19.86	137.977		
7,800.0	7,528.5	7,732.2	7,555.6	15.9	28.1	20.71	-2,866.8	-517.5	2,691.4	2,671.5	19.89	135.302		
7,850.0	7,533.9	7,737.5	7,560.9	16.2	28.1	45.40	-2,866.8	-517.5	2,641.8	2,617.7	24.08	109.718		
7,886.2	7,535.0	7,738.6	7,562.0	16.4	28.1	90.00	-2,866.8	-517.5	2,605.7	2,577.8	27.92	93.338		
7,900.0	7,535.0	7,738.6	7,562.0	16.5	28.1	90.00	-2,866.8	-517.5	2,591.9	2,563.9	28.02	92.503		
8,000.0	7,535.0	7,738.6	7,562.0	17.2	28.1	90.00	-2,866.8	-517.5	2,492.2	2,463.3	28.86	86.356		
8,100.0	7,535.0	7,738.6	7,562.0	18.1	28.1	90.00	-2,866.8	-517.5	2,392.4	2,362.6	29.84	80.166		
8,200.0	7,535.0	7,738.6	7,562.0	19.1	28.1	90.00	-2,866.8	-517.5	2,292.7	2,261.8	30.95	74.082		
8,300.0	7,535.0	7,738.6	7,562.0	20.2	28.1	90.00	-2,866.8	-517.5	2,193.0	2,160.9	32.15	68.207		
8,400.0	7,535.0	7,738.6	7,562.0	21.4	28.1	90.00	-2,866.8	-517.5	2,093.4	2,060.0	33.44	62.605		
8,500.0	7,535.0	7,738.6	7,562.0	22.7	28.1	90.00	-2,866.8	-517.5	1,993.8	1,959.0	34.79	57.308		
8,600.0	7,535.0	7,738.6	7,562.0	24.0	28.1	90.00	-2,866.8	-517.5	1,894.2	1,858.0	36.20	52.329		
8,700.0	7,535.0	7,738.6	7,562.0	25.4	28.1	90.00	-2,866.8	-517.5	1,794.7	1,757.0	37.65	47.667		
8,800.0	7,535.0	7,738.6	7,562.0	26.9	28.1	90.00	-2,866.8	-517.5	1,695.2	1,656.1	39.14	43.310		
8,900.0	7,535.0	7,738.6	7,562.0	28.3	28.1	90.00	-2,866.8	-517.5	1,595.8	1,555.2	40.66	39.245		
9,000.0	7,535.0	7,738.6	7,562.0	29.8	28.1	90.00	-2,866.8	-517.5	1,496.5	1,454.3	42.21	35.452		
9,100.0	7,535.0	7,738.6	7,562.0	31.3	28.1	90.00	-2,866.8	-517.5	1,397.3	1,353.5	43.78	31.914		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Olive) - Olive 13-26. - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,200.0	7,535.0	7,738.6	7,562.0	32.9	28.1	90.00	-2,866.8	-517.5	1,298.2	1,252.8	45.37	28.612		
9,300.0	7,535.0	7,738.6	7,562.0	34.4	28.1	90.00	-2,866.8	-517.5	1,199.2	1,152.2	46.98	25.527		
9,400.0	7,535.0	7,738.6	7,562.0	36.0	28.1	90.00	-2,866.8	-517.5	1,100.5	1,051.9	48.60	22.643		
9,500.0	7,535.0	7,738.6	7,562.0	37.6	28.1	90.00	-2,866.8	-517.5	1,001.9	951.7	50.23	19.946		
9,600.0	7,535.0	7,738.6	7,562.0	39.2	28.1	90.00	-2,866.8	-517.5	903.7	851.9	51.88	17.421		
9,700.0	7,535.0	7,738.6	7,562.0	40.9	28.1	90.00	-2,866.8	-517.5	806.0	752.5	53.53	15.057		
9,800.0	7,535.0	7,738.6	7,562.0	42.5	28.1	90.00	-2,866.8	-517.5	708.9	653.7	55.19	12.844		
9,900.0	7,535.0	7,738.6	7,562.0	44.1	28.1	90.00	-2,866.8	-517.5	612.7	555.8	56.86	10.775		
10,000.0	7,535.0	7,738.6	7,562.0	45.8	28.1	90.00	-2,866.8	-517.5	517.9	459.4	58.53	8.848		
10,100.0	7,535.0	7,738.6	7,562.0	47.4	28.1	90.00	-2,866.8	-517.5	425.5	365.3	60.22	7.067		
10,200.0	7,535.0	7,738.6	7,562.0	49.1	28.1	90.00	-2,866.8	-517.5	337.6	275.7	61.90	5.453		
10,300.0	7,535.0	7,738.6	7,562.0	50.8	28.1	90.00	-2,866.8	-517.5	258.5	194.9	63.59	4.065		
10,400.0	7,535.0	7,738.6	7,562.0	52.5	28.1	90.00	-2,866.8	-517.5	199.2	133.9	65.29	3.051		
10,485.7	7,535.0	7,738.6	7,562.0	53.9	28.1	90.00	-2,866.8	-517.5	179.9	113.1	66.74	2.695 CC, ES		
10,500.0	7,535.0	7,738.6	7,562.0	54.1	28.1	90.00	-2,866.8	-517.5	180.4	113.4	66.99	2.694 SF		
10,600.0	7,535.0	7,738.6	7,562.0	55.8	28.1	90.00	-2,866.8	-517.5	213.1	144.4	68.69	3.103		
10,700.0	7,535.0	7,738.6	7,562.0	57.5	28.1	90.00	-2,866.8	-517.5	279.8	209.4	70.40	3.975		
10,800.0	7,535.0	7,738.6	7,562.0	59.2	28.1	90.00	-2,866.8	-517.5	362.2	290.1	72.11	5.023		
10,900.0	7,535.0	7,738.6	7,562.0	60.9	28.1	90.00	-2,866.8	-517.5	451.7	377.9	73.82	6.119		
11,000.0	7,535.0	7,738.6	7,562.0	62.6	28.1	90.00	-2,866.8	-517.5	544.9	469.4	75.53	7.214		
11,100.0	7,535.0	7,738.6	7,562.0	64.3	28.1	90.00	-2,866.8	-517.5	640.1	562.9	77.25	8.287		
11,200.0	7,535.0	7,738.6	7,562.0	66.0	28.1	90.00	-2,866.8	-517.5	736.6	657.7	78.96	9.329		
11,300.0	7,535.0	7,738.6	7,562.0	67.7	28.1	90.00	-2,866.8	-517.5	834.0	753.3	80.68	10.336		
11,400.0	7,535.0	7,738.6	7,562.0	69.4	28.1	90.00	-2,866.8	-517.5	931.9	849.5	82.41	11.308		
11,496.2	7,535.0	7,738.6	7,562.0	71.1	28.1	90.00	-2,866.8	-517.5	1,026.4	942.3	84.06	12.210		
11,500.0	7,535.0	7,738.6	7,562.0	71.2	28.1	90.00	-2,866.8	-517.5	1,030.2	946.0	84.13	12.245		
11,600.0	7,535.0	7,738.6	7,562.0	72.9	28.1	90.00	-2,866.8	-517.5	1,128.8	1,042.9	85.85	13.147		
11,700.0	7,535.0	7,738.6	7,562.0	74.6	28.1	90.00	-2,866.8	-517.5	1,227.6	1,140.0	87.58	14.017		
11,800.0	7,535.0	7,738.6	7,562.0	76.3	28.1	90.00	-2,866.8	-517.5	1,326.6	1,237.3	89.31	14.854		
11,900.0	7,535.0	7,738.6	7,562.0	78.0	28.1	90.00	-2,866.8	-517.5	1,425.7	1,334.7	91.04	15.661		
12,000.0	7,535.0	7,738.6	7,562.0	79.7	28.1	90.00	-2,866.8	-517.5	1,525.0	1,432.2	92.77	16.439		
12,100.0	7,535.0	7,738.6	7,562.0	81.5	28.1	90.00	-2,866.8	-517.5	1,624.3	1,529.8	94.50	17.189		
12,200.0	7,535.0	7,738.6	7,562.0	83.2	28.1	90.00	-2,866.8	-517.5	1,723.7	1,627.5	96.23	17.913		
12,296.2	7,535.0	7,738.6	7,562.0	84.9	28.1	90.00	-2,866.8	-517.5	1,819.4	1,721.5	97.90	18.585		
12,300.0	7,535.0	7,738.6	7,562.0	84.9	28.1	90.00	-2,866.8	-517.5	1,823.2	1,725.3	97.97	18.610		
12,400.0	7,535.0	7,738.6	7,562.0	86.6	28.1	90.00	-2,866.8	-517.5	1,922.6	1,822.6	99.93	19.240		
12,492.9	7,535.0	7,738.6	7,562.0	88.3	28.1	90.00	-2,866.8	-517.5	2,014.6	1,912.9	101.71	19.808		
12,500.0	7,535.0	7,738.6	7,562.0	88.4	28.1	90.00	-2,866.8	-517.5	2,021.6	1,919.7	101.83	19.853		
12,600.0	7,535.0	7,738.6	7,562.0	90.1	28.1	90.00	-2,866.8	-517.5	2,120.4	2,016.9	103.56	20.475		
12,700.0	7,535.0	7,738.6	7,562.0	91.9	28.1	90.00	-2,866.8	-517.5	2,219.4	2,114.1	105.30	21.077		
12,800.0	7,535.0	7,738.6	7,562.0	93.6	28.1	90.00	-2,866.8	-517.5	2,318.5	2,211.4	107.04	21.660		
12,900.0	7,535.0	7,738.6	7,562.0	95.3	28.1	90.00	-2,866.8	-517.5	2,417.6	2,308.8	108.78	22.225		
13,000.0	7,535.0	7,738.6	7,562.0	97.1	28.1	90.00	-2,866.8	-517.5	2,516.8	2,406.3	110.51	22.773		
13,100.0	7,535.0	7,738.6	7,562.0	98.8	28.1	90.00	-2,866.8	-517.5	2,616.1	2,503.8	112.25	23.305		
13,200.0	7,535.0	7,738.6	7,562.0	100.5	28.1	90.00	-2,866.8	-517.5	2,715.4	2,601.4	113.99	23.821		
13,300.0	7,535.0	7,738.6	7,562.0	102.3	28.1	90.00	-2,866.8	-517.5	2,814.7	2,699.0	115.73	24.321		
13,400.0	7,535.0	7,738.6	7,562.0	104.0	28.1	90.00	-2,866.8	-517.5	2,914.2	2,796.7	117.47	24.807		
13,500.0	7,535.0	7,738.6	7,562.0	105.8	28.1	90.00	-2,866.8	-517.5	3,013.6	2,894.4	119.22	25.279		
13,600.0	7,535.0	7,738.6	7,562.0	107.5	28.1	90.00	-2,866.8	-517.5	3,113.1	2,992.1	120.96	25.737		
13,700.0	7,535.0	7,738.6	7,562.0	109.3	28.1	90.00	-2,866.8	-517.5	3,212.6	3,089.9	122.70	26.183		
13,800.0	7,535.0	7,738.6	7,562.0	111.0	28.1	90.00	-2,866.8	-517.5	3,312.2	3,187.7	124.44	26.616		
13,900.0	7,535.0	7,738.6	7,562.0	112.7	28.1	90.00	-2,866.8	-517.5	3,411.7	3,285.5	126.18	27.038		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R66W (Olive) - Olive 13-26. - DD - Plan #2													<b>Offset Site Error:</b> 0.0 ft
Survey Program: 0-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
14,000.0	7,535.0	7,738.6	7,562.0	114.5	28.1	90.00	-2,866.8	-517.5	3,511.3	3,383.4	127.93	27.448	
14,100.0	7,535.0	7,738.6	7,562.0	116.2	28.1	90.00	-2,866.8	-517.5	3,610.9	3,481.3	129.67	27.847	
14,200.0	7,535.0	7,738.6	7,562.0	118.0	28.1	90.00	-2,866.8	-517.5	3,710.6	3,579.2	131.42	28.236	
14,300.0	7,535.0	7,738.6	7,562.0	119.7	28.1	90.00	-2,866.8	-517.5	3,810.2	3,677.1	133.16	28.614	
14,400.0	7,535.0	7,738.6	7,562.0	121.5	28.1	90.00	-2,866.8	-517.5	3,909.9	3,775.0	134.90	28.983	
14,500.0	7,535.0	7,738.6	7,562.0	123.2	28.1	90.00	-2,866.8	-517.5	4,009.6	3,873.0	136.65	29.342	
14,600.0	7,535.0	7,738.6	7,562.0	124.9	28.1	90.00	-2,866.8	-517.5	4,109.3	3,970.9	138.39	29.693	
14,672.4	7,535.0	7,738.6	7,562.0	126.2	28.1	90.00	-2,866.8	-517.5	4,181.5	4,041.8	139.66	29.941	
14,672.9	7,535.0	7,738.6	7,562.0	126.2	28.1	90.00	-2,866.8	-517.5	4,182.0	4,042.3	139.67	29.943	





# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-3 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	33.0	33.0	0.0	0.1	171.27	-5,664.5	870.0	5,730.9					
100.0	100.0	133.0	133.0	0.2	0.2	171.27	-5,664.5	870.0	5,730.9	5,730.6	0.38	N/A		
200.0	200.0	233.0	233.0	0.3	0.4	171.27	-5,664.5	870.0	5,730.9	5,730.2	0.73	7,818.075		
300.0	300.0	333.0	333.0	0.5	0.6	171.27	-5,664.5	870.0	5,730.9	5,729.9	1.08	5,296.116		
400.0	400.0	433.0	433.0	0.7	0.8	171.27	-5,664.5	870.0	5,730.9	5,729.5	1.43	4,004.380		
500.0	500.0	533.0	533.0	0.8	0.9	171.27	-5,664.5	870.0	5,730.9	5,729.2	1.78	3,219.208		
600.0	600.0	633.0	633.0	1.0	1.1	171.27	-5,664.5	870.0	5,730.9	5,728.8	2.13	2,691.469		
700.0	700.0	733.0	733.0	1.2	1.3	171.27	-5,664.5	870.0	5,730.9	5,728.5	2.48	2,312.389		
800.0	800.0	833.0	833.0	1.4	1.5	171.27	-5,664.5	870.0	5,730.9	5,728.1	2.83	2,026.909		
900.0	900.0	933.0	933.0	1.5	1.6	171.27	-5,664.5	870.0	5,730.9	5,727.8	3.18	1,804.172		
1,000.0	1,000.0	1,033.0	1,033.0	1.7	1.8	171.27	-5,664.5	870.0	5,730.9	5,727.4	3.53	1,625.541		
1,100.0	1,100.0	1,133.0	1,133.0	1.9	2.0	171.27	-5,664.5	870.0	5,730.9	5,727.1	3.87	1,479.096		
1,200.0	1,200.0	1,233.0	1,233.0	2.1	2.2	-136.50	-5,664.5	870.0	5,731.6	5,727.4	4.22	1,357.046		
1,300.0	1,300.0	1,333.0	1,333.0	2.2	2.3	-136.50	-5,664.5	870.0	5,733.5	5,728.9	4.57	1,253.865		
1,400.0	1,399.9	1,432.9	1,432.9	2.4	2.5	-136.51	-5,664.5	870.0	5,736.6	5,731.7	4.92	1,165.349		
1,500.0	1,499.7	1,532.7	1,532.7	2.6	2.7	-136.52	-5,664.5	870.0	5,741.1	5,735.8	5.27	1,088.403		
1,600.0	1,599.4	1,632.4	1,632.4	2.8	2.8	-136.54	-5,664.5	870.0	5,746.8	5,741.2	5.63	1,020.717		
1,619.7	1,619.0	1,652.0	1,652.0	2.8	2.9	-136.54	-5,664.5	870.0	5,748.1	5,742.4	5.70	1,008.337		
1,700.0	1,699.0	1,732.0	1,732.0	3.0	3.0	-136.59	-5,664.5	870.0	5,753.3	5,747.4	5.99	960.438		
1,800.0	1,798.5	1,831.5	1,831.5	3.2	3.2	-136.65	-5,664.5	870.0	5,759.9	5,753.6	6.35	906.603		
1,900.0	1,898.1	1,931.1	1,931.1	3.4	3.4	-136.71	-5,664.5	870.0	5,766.5	5,759.8	6.72	858.352		
2,000.0	1,997.7	2,030.7	2,030.7	3.6	3.5	-136.77	-5,664.5	870.0	5,773.2	5,766.1	7.08	814.897		
2,100.0	2,097.3	2,130.3	2,130.3	3.9	3.7	-136.84	-5,664.5	870.0	5,779.8	5,772.3	7.45	775.585		
2,200.0	2,196.9	2,229.9	2,229.9	4.1	3.9	-136.90	-5,664.5	870.0	5,786.4	5,778.6	7.82	739.870		
2,300.0	2,296.5	2,329.5	2,329.5	4.3	4.1	-136.96	-5,664.5	870.0	5,793.0	5,784.8	8.19	707.294		
2,400.0	2,396.1	2,429.1	2,429.1	4.5	4.2	-137.02	-5,664.5	870.0	5,799.7	5,791.1	8.56	677.473		
2,500.0	2,495.7	2,528.7	2,528.7	4.7	4.4	-137.08	-5,664.5	870.0	5,806.3	5,797.4	8.93	650.080		
2,600.0	2,595.3	2,628.3	2,628.3	5.0	4.6	-137.14	-5,664.5	870.0	5,813.0	5,803.7	9.30	624.835		
2,700.0	2,694.8	2,727.8	2,727.8	5.2	4.8	-137.20	-5,664.5	870.0	5,819.6	5,809.9	9.68	601.502		
2,800.0	2,794.4	2,827.4	2,827.4	5.4	4.9	-137.26	-5,664.5	870.0	5,826.3	5,816.2	10.05	579.874		
2,900.0	2,894.0	2,927.0	2,927.0	5.6	5.1	-137.32	-5,664.5	870.0	5,832.9	5,822.5	10.42	559.775		
3,000.0	2,993.6	3,026.6	3,026.6	5.9	5.3	-137.38	-5,664.5	870.0	5,839.6	5,828.8	10.79	541.050		
3,100.0	3,093.2	3,126.2	3,126.2	6.1	5.5	-137.44	-5,664.5	870.0	5,846.3	5,835.1	11.17	523.566		
3,200.0	3,192.8	3,225.8	3,225.8	6.3	5.6	-137.50	-5,664.5	870.0	5,853.0	5,841.4	11.54	507.204		
3,300.0	3,292.4	3,325.4	3,325.4	6.5	5.8	-137.56	-5,664.5	870.0	5,859.7	5,847.8	11.91	491.861		
3,400.0	3,392.0	3,425.0	3,425.0	6.8	6.0	-137.62	-5,664.5	870.0	5,866.4	5,854.1	12.29	477.447		
3,500.0	3,491.6	3,524.6	3,524.6	7.0	6.2	-137.68	-5,664.5	870.0	5,873.1	5,860.4	12.66	463.879		
3,600.0	3,591.1	3,624.1	3,624.1	7.2	6.3	-137.74	-5,664.5	870.0	5,879.8	5,866.8	13.03	451.087		
3,700.0	3,690.7	3,723.7	3,723.7	7.5	6.5	-137.80	-5,664.5	870.0	5,886.5	5,873.1	13.41	439.006		
3,800.0	3,790.3	3,823.3	3,823.3	7.7	6.7	-137.86	-5,664.5	870.0	5,893.2	5,879.5	13.78	427.580		
3,900.0	3,889.9	3,922.9	3,922.9	7.9	6.8	-137.92	-5,664.5	870.0	5,900.0	5,885.8	14.16	416.756		
4,000.0	3,989.5	4,022.5	4,022.5	8.2	7.0	-137.98	-5,664.5	870.0	5,906.7	5,892.2	14.53	406.490		
4,100.0	4,089.1	4,122.1	4,122.1	8.4	7.2	-138.03	-5,664.5	870.0	5,913.5	5,898.6	14.91	396.738		
4,200.0	4,188.7	4,221.7	4,221.7	8.6	7.4	-138.09	-5,664.5	870.0	5,920.2	5,904.9	15.28	387.465		
4,300.0	4,288.3	4,321.3	4,321.3	8.9	7.5	-138.15	-5,664.5	870.0	5,927.0	5,911.3	15.65	378.635		
4,400.0	4,387.9	4,420.9	4,420.9	9.1	7.7	-138.21	-5,664.5	870.0	5,933.7	5,917.7	16.03	370.217		
4,500.0	4,487.4	4,520.4	4,520.4	9.3	7.9	-138.27	-5,664.5	870.0	5,940.5	5,924.1	16.40	362.185		
4,600.0	4,587.0	4,620.0	4,620.0	9.6	8.1	-138.33	-5,664.5	870.0	5,947.3	5,930.5	16.78	354.512		
4,700.0	4,686.6	4,719.6	4,719.6	9.8	8.2	-138.38	-5,664.5	870.0	5,954.1	5,936.9	17.15	347.174		
4,800.0	4,786.2	4,819.2	4,819.2	10.0	8.4	-138.44	-5,664.5	870.0	5,960.8	5,943.3	17.52	340.151		
4,900.0	4,885.8	4,918.8	4,918.8	10.3	8.6	-138.50	-5,664.5	870.0	5,967.6	5,949.7	17.90	333.423		
5,000.0	4,985.4	5,018.4	5,018.4	10.5	8.8	-138.56	-5,664.5	870.0	5,974.4	5,956.2	18.27	326.971		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-3 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
5,100.0	5,085.0	5,118.0	5,118.0	10.7	8.9	-138.61	-5,664.5	870.0	5,981.2	5,962.6	18.65	320.779		
5,200.0	5,184.6	5,217.6	5,217.6	11.0	9.1	-138.67	-5,664.5	870.0	5,988.1	5,969.0	19.02	314.831		
5,300.0	5,284.2	5,317.2	5,317.2	11.2	9.3	-138.73	-5,664.5	870.0	5,994.9	5,975.5	19.39	309.115		
5,400.0	5,383.7	5,416.7	5,416.7	11.4	9.5	-138.78	-5,664.5	870.0	6,001.7	5,981.9	19.77	303.615		
5,500.0	5,483.3	5,516.3	5,516.3	11.7	9.6	-138.84	-5,664.5	870.0	6,008.5	5,988.4	20.14	298.321		
5,600.0	5,582.9	5,615.9	5,615.9	11.9	9.8	-138.90	-5,664.5	870.0	6,015.4	5,994.8	20.51	293.221		
5,700.0	5,682.5	5,715.5	5,715.5	12.1	10.0	-138.95	-5,664.5	870.0	6,022.2	6,001.3	20.89	288.305		
5,800.0	5,782.1	5,815.1	5,815.1	12.4	10.1	-139.01	-5,664.5	870.0	6,029.1	6,007.8	21.26	283.563		
5,900.0	5,881.7	5,914.7	5,914.7	12.6	10.3	-139.07	-5,664.5	870.0	6,035.9	6,014.3	21.64	278.985		
6,000.0	5,981.3	6,014.3	6,014.3	12.8	10.5	-139.12	-5,664.5	870.0	6,042.8	6,020.8	22.01	274.564		
6,100.0	6,080.9	6,113.9	6,113.9	13.1	10.7	-139.18	-5,664.5	870.0	6,049.6	6,027.2	22.38	270.292		
6,200.0	6,180.5	6,213.5	6,213.5	13.3	10.8	-139.24	-5,664.5	870.0	6,056.5	6,033.7	22.75	266.161		
6,300.0	6,280.0	6,313.0	6,313.0	13.5	11.0	-139.29	-5,664.5	870.0	6,063.4	6,040.2	23.13	262.165		
6,400.0	6,379.6	6,412.6	6,412.6	13.8	11.2	-139.35	-5,664.5	870.0	6,070.3	6,046.8	23.50	258.296		
6,500.0	6,479.2	6,512.2	6,512.2	14.0	11.4	-139.40	-5,664.5	870.0	6,077.1	6,053.3	23.87	254.550		
6,600.0	6,578.8	6,611.8	6,611.8	14.2	11.5	-139.46	-5,664.5	870.0	6,084.0	6,059.8	24.25	250.920		
6,700.0	6,678.4	6,711.4	6,711.4	14.5	11.7	-139.51	-5,664.5	870.0	6,090.9	6,066.3	24.62	247.401		
6,800.0	6,778.0	6,811.0	6,811.0	14.7	11.9	-139.57	-5,664.5	870.0	6,097.8	6,072.8	24.99	243.988		
6,900.0	6,877.6	6,910.6	6,910.6	14.9	12.1	-139.62	-5,664.5	870.0	6,104.7	6,079.4	25.36	240.676		
6,953.0	6,930.4	6,963.4	6,963.4	15.1	12.2	-139.65	-5,664.5	870.0	6,108.4	6,082.8	25.56	238.959		
7,000.0	6,977.2	7,010.2	7,010.2	15.1	12.2	-81.10	-5,664.5	870.0	6,109.8	6,084.0	25.74	237.392		
7,050.0	7,027.0	7,060.0	7,060.0	15.2	12.3	-42.40	-5,664.5	870.0	6,107.1	6,081.3	25.79	236.782		
7,100.0	7,076.2	7,109.2	7,109.2	15.2	12.4	-29.90	-5,664.5	870.0	6,100.1	6,074.4	25.71	237.243		
7,150.0	7,124.6	7,157.6	7,157.6	15.3	12.5	-24.57	-5,664.5	870.0	6,088.9	6,063.4	25.50	238.760		
7,200.0	7,171.8	7,204.8	7,204.8	15.2	12.6	-21.86	-5,664.5	870.0	6,073.5	6,048.4	25.17	241.322		
7,250.0	7,217.4	7,250.4	7,250.4	15.2	12.7	-20.42	-5,664.5	870.0	6,054.2	6,029.5	24.72	244.914		
7,300.0	7,261.1	7,294.1	7,294.1	15.2	12.7	-19.74	-5,664.5	870.0	6,031.0	6,006.8	24.17	249.502		
7,350.0	7,302.5	7,335.5	7,335.5	15.2	12.8	-19.59	-5,664.5	870.0	6,004.1	5,980.6	23.54	255.011		
7,400.0	7,341.3	7,374.3	7,374.3	15.1	12.9	-19.89	-5,664.5	870.0	5,973.8	5,950.9	22.86	261.287		
7,450.0	7,377.2	7,410.2	7,410.2	15.1	12.9	-20.61	-5,664.5	870.0	5,940.2	5,918.1	22.16	268.039		
7,500.0	7,410.0	7,443.0	7,443.0	15.1	13.0	-21.80	-5,664.5	870.0	5,903.7	5,882.2	21.49	274.749		
7,550.0	7,439.4	7,472.4	7,472.4	15.2	13.0	-23.56	-5,664.5	870.0	5,864.4	5,843.5	20.90	280.546		
7,600.0	7,465.2	7,498.2	7,498.2	15.2	13.1	-26.08	-5,664.5	870.0	5,822.7	5,802.2	20.50	284.050		
7,650.0	7,487.1	7,520.1	7,520.1	15.3	13.1	-29.68	-5,664.5	870.0	5,779.0	5,758.6	20.40	283.264		
7,700.0	7,505.1	7,538.1	7,538.1	15.5	13.2	-34.91	-5,664.5	870.0	5,733.4	5,712.6	20.80	275.703		
7,750.0	7,518.9	7,551.9	7,551.9	15.7	13.2	-42.77	-5,664.5	870.0	5,686.5	5,664.6	21.93	259.274		
7,800.0	7,528.5	7,561.5	7,561.5	15.9	13.2	-54.88	-5,664.5	870.0	5,638.6	5,614.6	24.02	234.745		
7,850.0	7,533.9	7,566.9	7,566.9	16.2	13.2	-73.16	-5,664.5	870.0	5,589.9	5,563.3	26.63	209.938		
7,886.2	7,535.0	7,568.0	7,568.0	16.4	13.2	-90.00	-5,664.5	870.0	5,554.5	5,526.8	27.74	200.251		
7,900.0	7,535.0	7,568.0	7,568.0	16.5	13.2	-90.00	-5,664.5	870.0	5,541.0	5,513.2	27.84	199.023		
8,000.0	7,535.0	7,568.0	7,568.0	17.2	13.2	-90.00	-5,664.5	870.0	5,443.1	5,414.4	28.68	189.784		
8,100.0	7,535.0	7,568.0	7,568.0	18.1	13.2	-90.00	-5,664.5	870.0	5,345.2	5,315.6	29.66	180.189		
8,200.0	7,535.0	7,568.0	7,568.0	19.1	13.2	-90.00	-5,664.5	870.0	5,247.5	5,216.7	30.77	170.541		
8,300.0	7,535.0	7,568.0	7,568.0	20.2	13.2	-90.00	-5,664.5	870.0	5,149.8	5,117.8	31.97	161.063		
8,400.0	7,535.0	7,568.0	7,568.0	21.4	13.2	-90.00	-5,664.5	870.0	5,052.2	5,018.9	33.26	151.902		
8,500.0	7,535.0	7,568.0	7,568.0	22.7	13.2	-90.00	-5,664.5	870.0	4,954.7	4,920.1	34.61	143.150		
8,600.0	7,535.0	7,568.0	7,568.0	24.0	13.2	-90.00	-5,664.5	870.0	4,857.3	4,821.3	36.02	134.853		
8,700.0	7,535.0	7,568.0	7,568.0	25.4	13.2	-90.00	-5,664.5	870.0	4,760.0	4,722.6	37.47	127.029		
8,800.0	7,535.0	7,568.0	7,568.0	26.9	13.2	-90.00	-5,664.5	870.0	4,662.9	4,623.9	38.96	119.676		
8,900.0	7,535.0	7,568.0	7,568.0	28.3	13.2	-90.00	-5,664.5	870.0	4,565.8	4,525.4	40.48	112.780		
9,000.0	7,535.0	7,568.0	7,568.0	29.8	13.2	-90.00	-5,664.5	870.0	4,468.9	4,426.9	42.03	106.320		
9,100.0	7,535.0	7,568.0	7,568.0	31.3	13.2	-90.00	-5,664.5	870.0	4,372.2	4,328.6	43.60	100.270		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-3 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program:		0-MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,200.0	7,535.0	7,568.0	7,568.0	32.9	13.2	-90.00	-5,664.5	870.0	4,275.5	4,230.3	45.19	94.604		
9,300.0	7,535.0	7,568.0	7,568.0	34.4	13.2	-90.00	-5,664.5	870.0	4,179.1	4,132.3	46.80	89.296		
9,400.0	7,535.0	7,568.0	7,568.0	36.0	13.2	-90.00	-5,664.5	870.0	4,082.8	4,034.4	48.42	84.319		
9,500.0	7,535.0	7,568.0	7,568.0	37.6	13.2	-90.00	-5,664.5	870.0	3,986.7	3,936.6	50.05	79.648		
9,600.0	7,535.0	7,568.0	7,568.0	39.2	13.2	-90.00	-5,664.5	870.0	3,890.8	3,839.1	51.70	75.260		
9,700.0	7,535.0	7,568.0	7,568.0	40.9	13.2	-90.00	-5,664.5	870.0	3,795.0	3,741.7	53.35	71.134		
9,800.0	7,535.0	7,568.0	7,568.0	42.5	13.2	-90.00	-5,664.5	870.0	3,699.6	3,644.6	55.01	67.250		
9,900.0	7,535.0	7,568.0	7,568.0	44.1	13.2	-90.00	-5,664.5	870.0	3,604.3	3,547.7	56.68	63.590		
10,000.0	7,535.0	7,568.0	7,568.0	45.8	13.2	-90.00	-5,664.5	870.0	3,509.4	3,451.0	58.36	60.137		
10,100.0	7,535.0	7,568.0	7,568.0	47.4	13.2	-90.00	-5,664.5	870.0	3,414.7	3,354.7	60.04	56.876		
10,200.0	7,535.0	7,568.0	7,568.0	49.1	13.2	-90.00	-5,664.5	870.0	3,320.3	3,258.6	61.72	53.793		
10,300.0	7,535.0	7,568.0	7,568.0	50.8	13.2	-90.00	-5,664.5	870.0	3,226.3	3,162.9	63.41	50.876		
10,400.0	7,535.0	7,568.0	7,568.0	52.5	13.2	-90.00	-5,664.5	870.0	3,132.6	3,067.5	65.11	48.113		
10,500.0	7,535.0	7,568.0	7,568.0	54.1	13.2	-90.00	-5,664.5	870.0	3,039.4	2,972.6	66.81	45.493		
10,600.0	7,535.0	7,568.0	7,568.0	55.8	13.2	-90.00	-5,664.5	870.0	2,946.6	2,878.1	68.51	43.008		
10,700.0	7,535.0	7,568.0	7,568.0	57.5	13.2	-90.00	-5,664.5	870.0	2,854.2	2,784.0	70.22	40.648		
10,800.0	7,535.0	7,568.0	7,568.0	59.2	13.2	-90.00	-5,664.5	870.0	2,762.5	2,690.5	71.93	38.407		
10,900.0	7,535.0	7,568.0	7,568.0	60.9	13.2	-90.00	-5,664.5	870.0	2,671.2	2,597.6	73.64	36.275		
11,000.0	7,535.0	7,568.0	7,568.0	62.6	13.2	-90.00	-5,664.5	870.0	2,580.7	2,505.3	75.35	34.249		
11,100.0	7,535.0	7,568.0	7,568.0	64.3	13.2	-90.00	-5,664.5	870.0	2,490.9	2,413.8	77.07	32.321		
11,200.0	7,535.0	7,568.0	7,568.0	66.0	13.2	-90.00	-5,664.5	870.0	2,401.8	2,323.1	78.79	30.486		
11,300.0	7,535.0	7,568.0	7,568.0	67.7	13.2	-90.00	-5,664.5	870.0	2,313.7	2,233.2	80.51	28.740		
11,400.0	7,535.0	7,568.0	7,568.0	69.4	13.2	-90.00	-5,664.5	870.0	2,226.6	2,144.4	82.23	27.078		
11,496.2	7,535.0	7,568.0	7,568.0	71.1	13.2	-90.00	-5,664.5	870.0	2,143.9	2,060.0	83.89	25.557		
11,500.0	7,535.0	7,568.0	7,568.0	71.2	13.2	-90.00	-5,664.5	870.0	2,140.6	2,056.6	83.95	25.498		
11,600.0	7,535.0	7,568.0	7,568.0	72.9	13.2	-90.00	-5,664.5	870.0	2,055.9	1,970.2	85.68	23.996		
11,700.0	7,535.0	7,568.0	7,568.0	74.6	13.2	-90.00	-5,664.5	870.0	1,972.6	1,885.2	87.40	22.569		
11,800.0	7,535.0	7,568.0	7,568.0	76.3	13.2	-90.00	-5,664.5	870.0	1,890.9	1,801.8	89.13	21.215		
11,900.0	7,535.0	7,568.0	7,568.0	78.0	13.2	-90.00	-5,664.5	870.0	1,811.1	1,720.2	90.86	19.933		
12,000.0	7,535.0	7,568.0	7,568.0	79.7	13.2	-90.00	-5,664.5	870.0	1,733.3	1,640.7	92.59	18.720		
12,100.0	7,535.0	7,568.0	7,568.0	81.5	13.2	-90.00	-5,664.5	870.0	1,657.9	1,563.6	94.32	17.578		
12,200.0	7,535.0	7,568.0	7,568.0	83.2	13.2	-90.00	-5,664.5	870.0	1,585.3	1,489.3	96.05	16.505		
12,296.2	7,535.0	7,568.0	7,568.0	84.9	13.2	-90.00	-5,664.5	870.0	1,518.4	1,420.7	97.72	15.538		
12,300.0	7,535.0	7,568.0	7,568.0	84.9	13.2	-90.00	-5,664.5	870.0	1,515.8	1,418.0	97.79	15.500		
12,400.0	7,535.0	7,568.0	7,568.0	86.6	13.2	-90.00	-5,664.5	870.0	1,451.3	1,351.6	99.73	14.552		
12,492.9	7,535.0	7,568.0	7,568.0	88.3	13.2	-90.00	-5,664.5	870.0	1,397.7	1,296.3	101.45	13.778		
12,500.0	7,535.0	7,568.0	7,568.0	88.4	13.2	-90.00	-5,664.5	870.0	1,393.9	1,292.3	101.57	13.723		
12,600.0	7,535.0	7,568.0	7,568.0	90.1	13.2	-90.00	-5,664.5	870.0	1,342.8	1,239.5	103.31	12.998		
12,700.0	7,535.0	7,568.0	7,568.0	91.9	13.2	-90.00	-5,664.5	870.0	1,297.4	1,192.4	105.04	12.351		
12,800.0	7,535.0	7,568.0	7,568.0	93.6	13.2	-90.00	-5,664.5	870.0	1,258.4	1,151.6	106.78	11.785		
12,900.0	7,535.0	7,568.0	7,568.0	95.3	13.2	-90.00	-5,664.5	870.0	1,226.2	1,117.7	108.52	11.300		
13,000.0	7,535.0	7,568.0	7,568.0	97.1	13.2	-90.00	-5,664.5	870.0	1,201.6	1,091.3	110.26	10.898		
13,100.0	7,535.0	7,568.0	7,568.0	98.8	13.2	-90.00	-5,664.5	870.0	1,184.9	1,072.9	112.00	10.580		
13,200.0	7,535.0	7,568.0	7,568.0	100.5	13.2	-90.00	-5,664.5	870.0	1,176.5	1,062.8	113.74	10.344		
13,249.1	7,535.0	7,568.0	7,568.0	101.4	13.2	-90.00	-5,664.5	870.0	1,175.5	1,060.9	114.59	10.258 CC, ES		
13,300.0	7,535.0	7,568.0	7,568.0	102.3	13.2	-90.00	-5,664.5	870.0	1,176.6	1,061.1	115.48	10.189		
13,400.0	7,535.0	7,568.0	7,568.0	104.0	13.2	-90.00	-5,664.5	870.0	1,185.1	1,067.9	117.22	10.111		
13,500.0	7,535.0	7,568.0	7,568.0	105.8	13.2	-90.00	-5,664.5	870.0	1,202.0	1,083.0	118.96	10.104 SF		
13,600.0	7,535.0	7,568.0	7,568.0	107.5	13.2	-90.00	-5,664.5	870.0	1,226.8	1,106.1	120.70	10.164		
13,700.0	7,535.0	7,568.0	7,568.0	109.3	13.2	-90.00	-5,664.5	870.0	1,259.0	1,136.6	122.44	10.283		
13,800.0	7,535.0	7,568.0	7,568.0	111.0	13.2	-90.00	-5,664.5	870.0	1,298.2	1,174.0	124.18	10.454		
13,900.0	7,535.0	7,568.0	7,568.0	112.7	13.2	-90.00	-5,664.5	870.0	1,343.7	1,217.7	125.93	10.670		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-3 (EXISTING) - Existing - Existing													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
14,000.0	7,535.0	7,568.0	7,568.0	114.5	13.2	-90.00	-5,664.5	870.0	1,394.9	1,267.2	127.67	10.925		
14,100.0	7,535.0	7,568.0	7,568.0	116.2	13.2	-90.00	-5,664.5	870.0	1,451.1	1,321.7	129.41	11.213		
14,200.0	7,535.0	7,568.0	7,568.0	118.0	13.2	-90.00	-5,664.5	870.0	1,512.0	1,380.8	131.16	11.528		
14,300.0	7,535.0	7,568.0	7,568.0	119.7	13.2	-90.00	-5,664.5	870.0	1,576.8	1,443.9	132.90	11.864		
14,400.0	7,535.0	7,568.0	7,568.0	121.5	13.2	-90.00	-5,664.5	870.0	1,645.1	1,510.5	134.65	12.218		
14,500.0	7,535.0	7,568.0	7,568.0	123.2	13.2	-90.00	-5,664.5	870.0	1,716.5	1,580.2	136.39	12.585		
14,600.0	7,535.0	7,568.0	7,568.0	124.9	13.2	-90.00	-5,664.5	870.0	1,790.7	1,652.6	138.14	12.963		
14,672.4	7,535.0	7,568.0	7,568.0	126.2	13.2	-90.00	-5,664.5	870.0	1,845.9	1,706.5	139.40	13.242		
14,672.9	7,535.0	7,568.0	7,568.0	126.2	13.2	-90.00	-5,664.5	870.0	1,846.3	1,706.9	139.41	13.244		



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-4 (EXISTING) - Existing - Existing													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	8.0	8.0	0.0	0.0	-175.23	-5,473.3	-457.1	5,492.3					
100.0	100.0	108.0	108.0	0.2	0.2	-175.23	-5,473.3	-457.1	5,492.3	5,492.0	0.34	N/A		
200.0	200.0	208.0	208.0	0.3	0.4	-175.23	-5,473.3	-457.1	5,492.3	5,491.7	0.69	7,966.790		
300.0	300.0	308.0	308.0	0.5	0.5	-175.23	-5,473.3	-457.1	5,492.3	5,491.3	1.04	5,288.878		
400.0	400.0	408.0	408.0	0.7	0.7	-175.23	-5,473.3	-457.1	5,492.3	5,491.0	1.39	3,958.343		
500.0	500.0	508.0	508.0	0.8	0.9	-175.23	-5,473.3	-457.1	5,492.3	5,490.6	1.74	3,162.696		
600.0	600.0	608.0	608.0	1.0	1.1	-175.23	-5,473.3	-457.1	5,492.3	5,490.3	2.09	2,633.375		
700.0	700.0	708.0	708.0	1.2	1.2	-175.23	-5,473.3	-457.1	5,492.3	5,489.9	2.43	2,255.830		
800.0	800.0	808.0	808.0	1.4	1.4	-175.23	-5,473.3	-457.1	5,492.3	5,489.6	2.78	1,972.967		
900.0	900.0	908.0	908.0	1.5	1.6	-175.23	-5,473.3	-457.1	5,492.3	5,489.2	3.13	1,753.138		
1,000.0	1,000.0	1,008.0	1,008.0	1.7	1.8	-175.23	-5,473.3	-457.1	5,492.3	5,488.9	3.48	1,577.385		
1,100.0	1,100.0	1,108.0	1,108.0	1.9	1.9	-175.23	-5,473.3	-457.1	5,492.3	5,488.5	3.83	1,433.660		
1,200.0	1,200.0	1,208.0	1,208.0	2.1	2.1	-122.99	-5,473.3	-457.1	5,492.8	5,488.6	4.18	1,314.044		
1,300.0	1,300.0	1,308.0	1,308.0	2.2	2.3	-123.00	-5,473.3	-457.1	5,494.2	5,489.7	4.53	1,212.899		
1,400.0	1,399.9	1,407.9	1,407.9	2.4	2.5	-123.02	-5,473.3	-457.1	5,496.6	5,491.7	4.88	1,125.990		
1,500.0	1,499.7	1,507.7	1,507.7	2.6	2.6	-123.05	-5,473.3	-457.1	5,500.0	5,494.7	5.24	1,050.213		
1,600.0	1,599.4	1,607.4	1,607.4	2.8	2.8	-123.08	-5,473.3	-457.1	5,504.2	5,498.7	5.60	983.263		
1,619.7	1,619.0	1,627.0	1,627.0	2.8	2.8	-123.09	-5,473.3	-457.1	5,505.2	5,499.5	5.67	970.994		
1,700.0	1,699.0	1,707.0	1,707.0	3.0	3.0	-123.15	-5,473.3	-457.1	5,509.2	5,503.2	5.96	923.685		
1,800.0	1,798.5	1,806.5	1,806.5	3.2	3.2	-123.23	-5,473.3	-457.1	5,514.2	5,507.8	6.33	870.510		
1,900.0	1,898.1	1,906.1	1,906.1	3.4	3.3	-123.31	-5,473.3	-457.1	5,519.1	5,512.4	6.71	822.873		
2,000.0	1,997.7	2,005.7	2,005.7	3.6	3.5	-123.39	-5,473.3	-457.1	5,524.1	5,517.1	7.08	780.007		
2,100.0	2,097.3	2,105.3	2,105.3	3.9	3.7	-123.46	-5,473.3	-457.1	5,529.1	5,521.7	7.46	741.270		
2,200.0	2,196.9	2,204.9	2,204.9	4.1	3.8	-123.54	-5,473.3	-457.1	5,534.2	5,526.3	7.84	706.121		
2,300.0	2,296.5	2,304.5	2,304.5	4.3	4.0	-123.62	-5,473.3	-457.1	5,539.2	5,531.0	8.22	674.103		
2,400.0	2,396.1	2,404.1	2,404.1	4.5	4.2	-123.70	-5,473.3	-457.1	5,544.2	5,535.6	8.60	644.834		
2,500.0	2,495.7	2,503.7	2,503.7	4.7	4.4	-123.78	-5,473.3	-457.1	5,549.3	5,540.3	8.98	617.984		
2,600.0	2,595.3	2,603.3	2,603.3	5.0	4.5	-123.85	-5,473.3	-457.1	5,554.3	5,545.0	9.36	593.275		
2,700.0	2,694.8	2,702.8	2,702.8	5.2	4.7	-123.93	-5,473.3	-457.1	5,559.4	5,549.6	9.75	570.468		
2,800.0	2,794.4	2,802.4	2,802.4	5.4	4.9	-124.01	-5,473.3	-457.1	5,564.5	5,554.3	10.13	549.356		
2,900.0	2,894.0	2,902.0	2,902.0	5.6	5.1	-124.08	-5,473.3	-457.1	5,569.5	5,559.0	10.51	529.762		
3,000.0	2,993.6	3,001.6	3,001.6	5.9	5.2	-124.16	-5,473.3	-457.1	5,574.6	5,563.7	10.90	511.531		
3,100.0	3,093.2	3,101.2	3,101.2	6.1	5.4	-124.24	-5,473.3	-457.1	5,579.7	5,568.5	11.28	494.528		
3,200.0	3,192.8	3,200.8	3,200.8	6.3	5.6	-124.31	-5,473.3	-457.1	5,584.9	5,573.2	11.67	478.635		
3,300.0	3,292.4	3,300.4	3,300.4	6.5	5.8	-124.39	-5,473.3	-457.1	5,590.0	5,577.9	12.05	463.750		
3,400.0	3,392.0	3,400.0	3,400.0	6.8	5.9	-124.47	-5,473.3	-457.1	5,595.1	5,582.7	12.44	449.780		
3,500.0	3,491.6	3,499.6	3,499.6	7.0	6.1	-124.54	-5,473.3	-457.1	5,600.3	5,587.4	12.83	436.645		
3,600.0	3,591.1	3,599.1	3,599.1	7.2	6.3	-124.62	-5,473.3	-457.1	5,605.4	5,592.2	13.21	424.274		
3,700.0	3,690.7	3,698.7	3,698.7	7.5	6.5	-124.70	-5,473.3	-457.1	5,610.6	5,597.0	13.60	412.602		
3,800.0	3,790.3	3,798.3	3,798.3	7.7	6.6	-124.77	-5,473.3	-457.1	5,615.8	5,601.8	13.98	401.572		
3,900.0	3,889.9	3,897.9	3,897.9	7.9	6.8	-124.85	-5,473.3	-457.1	5,621.0	5,606.6	14.37	391.134		
4,000.0	3,989.5	3,997.5	3,997.5	8.2	7.0	-124.92	-5,473.3	-457.1	5,626.2	5,611.4	14.76	381.242		
4,100.0	4,089.1	4,097.1	4,097.1	8.4	7.2	-125.00	-5,473.3	-457.1	5,631.4	5,616.2	15.14	371.854		
4,200.0	4,188.7	4,196.7	4,196.7	8.6	7.3	-125.07	-5,473.3	-457.1	5,636.6	5,621.0	15.53	362.933		
4,300.0	4,288.3	4,296.3	4,296.3	8.9	7.5	-125.15	-5,473.3	-457.1	5,641.8	5,625.9	15.92	354.446		
4,400.0	4,387.9	4,395.9	4,395.9	9.1	7.7	-125.22	-5,473.3	-457.1	5,647.0	5,630.7	16.30	346.361		
4,500.0	4,487.4	4,495.4	4,495.4	9.3	7.8	-125.30	-5,473.3	-457.1	5,652.3	5,635.6	16.69	338.652		
4,600.0	4,587.0	4,595.0	4,595.0	9.6	8.0	-125.37	-5,473.3	-457.1	5,657.5	5,640.4	17.08	331.293		
4,700.0	4,686.6	4,694.6	4,694.6	9.8	8.2	-125.45	-5,473.3	-457.1	5,662.8	5,645.3	17.46	324.260		
4,800.0	4,786.2	4,794.2	4,794.2	10.0	8.4	-125.52	-5,473.3	-457.1	5,668.1	5,650.2	17.85	317.534		
4,900.0	4,885.8	4,893.8	4,893.8	10.3	8.5	-125.60	-5,473.3	-457.1	5,673.3	5,655.1	18.24	311.093		
5,000.0	4,985.4	4,993.4	4,993.4	10.5	8.7	-125.67	-5,473.3	-457.1	5,678.6	5,660.0	18.62	304.921		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-4 (EXISTING) - Existing - Existing													Offset Site Error: 0.0 ft	
Survey Program: O-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,085.0	5,093.0	5,093.0	10.7	8.9	-125.74	-5,473.3	-457.1	5,683.9	5,664.9	19.01	299.001		
5,200.0	5,184.6	5,192.6	5,192.6	11.0	9.1	-125.82	-5,473.3	-457.1	5,689.2	5,669.9	19.40	293.319		
5,300.0	5,284.2	5,292.2	5,292.2	11.2	9.2	-125.89	-5,473.3	-457.1	5,694.6	5,674.8	19.78	287.860		
5,400.0	5,383.7	5,391.7	5,391.7	11.4	9.4	-125.96	-5,473.3	-457.1	5,699.9	5,679.7	20.17	282.611		
5,500.0	5,483.3	5,491.3	5,491.3	11.7	9.6	-126.04	-5,473.3	-457.1	5,705.2	5,684.7	20.55	277.561		
5,600.0	5,582.9	5,590.9	5,590.9	11.9	9.8	-126.11	-5,473.3	-457.1	5,710.6	5,689.6	20.94	272.699		
5,700.0	5,682.5	5,690.5	5,690.5	12.1	9.9	-126.18	-5,473.3	-457.1	5,715.9	5,694.6	21.33	268.014		
5,800.0	5,782.1	5,790.1	5,790.1	12.4	10.1	-126.26	-5,473.3	-457.1	5,721.3	5,699.6	21.71	263.497		
5,900.0	5,881.7	5,889.7	5,889.7	12.6	10.3	-126.33	-5,473.3	-457.1	5,726.7	5,704.6	22.10	259.139		
6,000.0	5,981.3	5,989.3	5,989.3	12.8	10.5	-126.40	-5,473.3	-457.1	5,732.1	5,709.6	22.48	254.933		
6,100.0	6,080.9	6,088.9	6,088.9	13.1	10.6	-126.48	-5,473.3	-457.1	5,737.5	5,714.6	22.87	250.869		
6,200.0	6,180.5	6,188.5	6,188.5	13.3	10.8	-126.55	-5,473.3	-457.1	5,742.9	5,719.6	23.26	246.942		
6,300.0	6,280.0	6,288.0	6,288.0	13.5	11.0	-126.62	-5,473.3	-457.1	5,748.3	5,724.6	23.64	243.144		
6,400.0	6,379.6	6,387.6	6,387.6	13.8	11.1	-126.69	-5,473.3	-457.1	5,753.7	5,729.7	24.03	239.469		
6,500.0	6,479.2	6,487.2	6,487.2	14.0	11.3	-126.76	-5,473.3	-457.1	5,759.1	5,734.7	24.41	235.912		
6,600.0	6,578.8	6,586.8	6,586.8	14.2	11.5	-126.84	-5,473.3	-457.1	5,764.6	5,739.8	24.80	232.467		
6,700.0	6,678.4	6,686.4	6,686.4	14.5	11.7	-126.91	-5,473.3	-457.1	5,770.0	5,744.8	25.18	229.128		
6,800.0	6,778.0	6,786.0	6,786.0	14.7	11.8	-126.98	-5,473.3	-457.1	5,775.5	5,749.9	25.57	225.891		
6,900.0	6,877.6	6,885.6	6,885.6	14.9	12.0	-127.05	-5,473.3	-457.1	5,781.0	5,755.0	25.95	222.751		
6,953.0	6,930.4	6,938.4	6,938.4	15.1	12.1	-127.09	-5,473.3	-457.1	5,783.9	5,757.7	26.16	221.124		
7,000.0	6,977.2	6,985.2	6,985.2	15.1	12.2	-68.57	-5,473.3	-457.1	5,784.5	5,758.2	26.32	219.810		
7,050.0	7,027.0	7,035.0	7,035.0	15.2	12.3	-29.80	-5,473.3	-457.1	5,781.0	5,754.6	26.35	219.416		
7,100.0	7,076.2	7,084.2	7,084.2	15.2	12.4	-17.13	-5,473.3	-457.1	5,773.1	5,746.9	26.24	220.050		
7,150.0	7,124.6	7,132.6	7,132.6	15.3	12.4	-11.51	-5,473.3	-457.1	5,761.0	5,735.0	25.98	221.721		
7,200.0	7,171.8	7,179.8	7,179.8	15.2	12.5	-8.40	-5,473.3	-457.1	5,744.7	5,719.1	25.59	224.453		
7,250.0	7,217.4	7,225.4	7,225.4	15.2	12.6	-6.41	-5,473.3	-457.1	5,724.4	5,699.3	25.08	228.282		
7,300.0	7,261.1	7,269.1	7,269.1	15.2	12.7	-5.01	-5,473.3	-457.1	5,700.1	5,675.7	24.44	233.254		
7,350.0	7,302.5	7,310.5	7,310.5	15.2	12.8	-3.95	-5,473.3	-457.1	5,672.2	5,648.5	23.69	239.418		
7,400.0	7,341.3	7,349.3	7,349.3	15.1	12.8	-3.08	-5,473.3	-457.1	5,640.7	5,617.8	22.85	246.813		
7,450.0	7,377.2	7,385.2	7,385.2	15.1	12.9	-2.31	-5,473.3	-457.1	5,606.0	5,584.0	21.95	255.452		
7,500.0	7,410.0	7,418.0	7,418.0	15.1	12.9	-1.58	-5,473.3	-457.1	5,568.3	5,547.3	20.99	265.290		
7,550.0	7,439.4	7,447.4	7,447.4	15.2	13.0	-0.82	-5,473.3	-457.1	5,527.8	5,507.8	20.02	276.171		
7,600.0	7,465.2	7,473.2	7,473.2	15.2	13.0	0.04	-5,473.3	-457.1	5,485.0	5,465.9	19.06	287.753		
7,650.0	7,487.1	7,495.1	7,495.1	15.3	13.1	1.14	-5,473.3	-457.1	5,440.1	5,421.9	18.17	299.389		
7,700.0	7,505.1	7,513.1	7,513.1	15.5	13.1	2.71	-5,473.3	-457.1	5,393.5	5,376.1	17.40	309.913		
7,750.0	7,518.9	7,526.9	7,526.9	15.7	13.1	5.31	-5,473.3	-457.1	5,345.4	5,328.6	16.86	317.064		
7,800.0	7,528.5	7,536.5	7,536.5	15.9	13.2	10.76	-5,473.3	-457.1	5,296.4	5,279.6	16.84	314.527		
7,850.0	7,533.9	7,541.9	7,541.9	16.2	13.2	28.99	-5,473.3	-457.1	5,246.7	5,227.2	19.55	268.328		
7,886.2	7,535.0	7,543.0	7,543.0	16.4	13.2	90.00	-5,473.3	-457.1	5,210.6	5,182.9	27.69	188.147		
7,900.0	7,535.0	7,543.0	7,543.0	16.5	13.2	90.00	-5,473.3	-457.1	5,196.8	5,169.0	27.80	186.953		
8,000.0	7,535.0	7,543.0	7,543.0	17.2	13.2	90.00	-5,473.3	-457.1	5,096.9	5,068.2	28.64	177.984		
8,100.0	7,535.0	7,543.0	7,543.0	18.1	13.2	90.00	-5,473.3	-457.1	4,997.0	4,967.3	29.62	168.696		
8,200.0	7,535.0	7,543.0	7,543.0	19.1	13.2	90.00	-5,473.3	-457.1	4,897.0	4,866.3	30.73	159.378		
8,300.0	7,535.0	7,543.0	7,543.0	20.2	13.2	90.00	-5,473.3	-457.1	4,797.1	4,765.2	31.93	150.238		
8,400.0	7,535.0	7,543.0	7,543.0	21.4	13.2	90.00	-5,473.3	-457.1	4,697.2	4,664.0	33.22	141.415		
8,500.0	7,535.0	7,543.0	7,543.0	22.7	13.2	90.00	-5,473.3	-457.1	4,597.3	4,562.8	34.57	132.992		
8,600.0	7,535.0	7,543.0	7,543.0	24.0	13.2	90.00	-5,473.3	-457.1	4,497.4	4,461.4	35.98	125.012		
8,700.0	7,535.0	7,543.0	7,543.0	25.4	13.2	90.00	-5,473.3	-457.1	4,397.5	4,360.1	37.43	117.491		
8,800.0	7,535.0	7,543.0	7,543.0	26.9	13.2	90.00	-5,473.3	-457.1	4,297.6	4,258.7	38.92	110.425		
8,900.0	7,535.0	7,543.0	7,543.0	28.3	13.2	90.00	-5,473.3	-457.1	4,197.8	4,157.3	40.44	103.800		
9,000.0	7,535.0	7,543.0	7,543.0	29.8	13.2	90.00	-5,473.3	-457.1	4,097.9	4,055.9	41.99	97.594		
9,100.0	7,535.0	7,543.0	7,543.0	31.3	13.2	90.00	-5,473.3	-457.1	3,998.0	3,954.5	43.56	91.781		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-4 (EXISTING) - Existing - Existing												Offset Site Error:	0.0 ft
Survey Program: O-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
9,200.0	7,535.0	7,543.0	7,543.0	32.9	13.2	90.00	-5,473.3	-457.1	3,898.1	3,853.0	45.15	86.337	
9,300.0	7,535.0	7,543.0	7,543.0	34.4	13.2	90.00	-5,473.3	-457.1	3,798.3	3,751.5	46.76	81.235	
9,400.0	7,535.0	7,543.0	7,543.0	36.0	13.2	90.00	-5,473.3	-457.1	3,698.4	3,650.1	48.38	76.450	
9,500.0	7,535.0	7,543.0	7,543.0	37.6	13.2	90.00	-5,473.3	-457.1	3,598.6	3,548.6	50.01	71.957	
9,600.0	7,535.0	7,543.0	7,543.0	39.2	13.2	90.00	-5,473.3	-457.1	3,498.8	3,447.1	51.65	67.735	
9,700.0	7,535.0	7,543.0	7,543.0	40.9	13.2	90.00	-5,473.3	-457.1	3,399.0	3,345.6	53.31	63.762	
9,800.0	7,535.0	7,543.0	7,543.0	42.5	13.2	90.00	-5,473.3	-457.1	3,299.1	3,244.2	54.97	60.019	
9,900.0	7,535.0	7,543.0	7,543.0	44.1	13.2	90.00	-5,473.3	-457.1	3,199.3	3,142.7	56.64	56.488	
10,000.0	7,535.0	7,543.0	7,543.0	45.8	13.2	90.00	-5,473.3	-457.1	3,099.6	3,041.2	58.31	53.154	
10,100.0	7,535.0	7,543.0	7,543.0	47.4	13.2	90.00	-5,473.3	-457.1	2,999.8	2,939.8	59.99	50.002	
10,200.0	7,535.0	7,543.0	7,543.0	49.1	13.2	90.00	-5,473.3	-457.1	2,900.0	2,838.3	61.68	47.017	
10,300.0	7,535.0	7,543.0	7,543.0	50.8	13.2	90.00	-5,473.3	-457.1	2,800.3	2,736.9	63.37	44.189	
10,400.0	7,535.0	7,543.0	7,543.0	52.5	13.2	90.00	-5,473.3	-457.1	2,700.6	2,635.5	65.07	41.505	
10,500.0	7,535.0	7,543.0	7,543.0	54.1	13.2	90.00	-5,473.3	-457.1	2,600.9	2,534.1	66.77	38.955	
10,600.0	7,535.0	7,543.0	7,543.0	55.8	13.2	90.00	-5,473.3	-457.1	2,501.2	2,432.7	68.47	36.531	
10,700.0	7,535.0	7,543.0	7,543.0	57.5	13.2	90.00	-5,473.3	-457.1	2,401.6	2,331.4	70.17	34.223	
10,800.0	7,535.0	7,543.0	7,543.0	59.2	13.2	90.00	-5,473.3	-457.1	2,301.9	2,230.1	71.88	32.023	
10,900.0	7,535.0	7,543.0	7,543.0	60.9	13.2	90.00	-5,473.3	-457.1	2,202.4	2,128.8	73.59	29.926	
11,000.0	7,535.0	7,543.0	7,543.0	62.6	13.2	90.00	-5,473.3	-457.1	2,102.8	2,027.5	75.31	27.923	
11,100.0	7,535.0	7,543.0	7,543.0	64.3	13.2	90.00	-5,473.3	-457.1	2,003.3	1,926.3	77.02	26.009	
11,200.0	7,535.0	7,543.0	7,543.0	66.0	13.2	90.00	-5,473.3	-457.1	1,903.9	1,825.1	78.74	24.179	
11,300.0	7,535.0	7,543.0	7,543.0	67.7	13.2	90.00	-5,473.3	-457.1	1,804.5	1,724.0	80.46	22.427	
11,400.0	7,535.0	7,543.0	7,543.0	69.4	13.2	90.00	-5,473.3	-457.1	1,705.2	1,623.0	82.18	20.748	
11,496.2	7,535.0	7,543.0	7,543.0	71.1	13.2	90.00	-5,473.3	-457.1	1,609.8	1,525.9	83.84	19.200	
11,500.0	7,535.0	7,543.0	7,543.0	71.2	13.2	90.00	-5,473.3	-457.1	1,606.0	1,522.1	83.91	19.140	
11,600.0	7,535.0	7,543.0	7,543.0	72.9	13.2	90.00	-5,473.3	-457.1	1,506.8	1,421.2	85.63	17.597	
11,700.0	7,535.0	7,543.0	7,543.0	74.6	13.2	90.00	-5,473.3	-457.1	1,407.8	1,320.5	87.36	16.116	
11,800.0	7,535.0	7,543.0	7,543.0	76.3	13.2	90.00	-5,473.3	-457.1	1,309.0	1,219.9	89.09	14.694	
11,900.0	7,535.0	7,543.0	7,543.0	78.0	13.2	90.00	-5,473.3	-457.1	1,210.4	1,119.5	90.82	13.328	
12,000.0	7,535.0	7,543.0	7,543.0	79.7	13.2	90.00	-5,473.3	-457.1	1,111.9	1,019.4	92.55	12.015	
12,100.0	7,535.0	7,543.0	7,543.0	81.5	13.2	90.00	-5,473.3	-457.1	1,013.8	919.6	94.28	10.754	
12,200.0	7,535.0	7,543.0	7,543.0	83.2	13.2	90.00	-5,473.3	-457.1	916.2	820.1	96.01	9.542	
12,296.2	7,535.0	7,543.0	7,543.0	84.9	13.2	90.00	-5,473.3	-457.1	822.7	725.0	97.68	8.423	
12,300.0	7,535.0	7,543.0	7,543.0	84.9	13.2	90.00	-5,473.3	-457.1	819.0	721.3	97.75	8.379	
12,400.0	7,535.0	7,543.0	7,543.0	86.6	13.2	90.00	-5,473.3	-457.1	722.2	622.5	99.69	7.244	
12,492.9	7,535.0	7,543.0	7,543.0	88.3	13.2	90.00	-5,473.3	-457.1	632.1	530.7	101.40	6.234	
12,500.0	7,535.0	7,543.0	7,543.0	88.4	13.2	90.00	-5,473.3	-457.1	625.3	523.8	101.53	6.159	
12,600.0	7,535.0	7,543.0	7,543.0	90.1	13.2	90.00	-5,473.3	-457.1	529.1	425.9	103.26	5.124	
12,700.0	7,535.0	7,543.0	7,543.0	91.9	13.2	90.00	-5,473.3	-457.1	434.7	329.7	105.00	4.140	
12,800.0	7,535.0	7,543.0	7,543.0	93.6	13.2	90.00	-5,473.3	-457.1	343.4	236.7	106.74	3.217	
12,900.0	7,535.0	7,543.0	7,543.0	95.3	13.2	90.00	-5,473.3	-457.1	258.6	150.2	108.48	2.384	
13,000.0	7,535.0	7,543.0	7,543.0	97.1	13.2	90.00	-5,473.3	-457.1	189.4	79.2	110.21	1.718	
13,100.0	7,535.0	7,543.0	7,543.0	98.8	13.2	90.00	-5,473.3	-457.1	157.6	45.7	111.95	1.408 Level 3	
13,105.1	7,535.0	7,543.0	7,543.0	98.9	13.2	90.00	-5,473.3	-457.1	157.6	45.5	112.04	1.406 Level 3, CC, ES, SF	
13,200.0	7,535.0	7,543.0	7,543.0	100.5	13.2	90.00	-5,473.3	-457.1	183.9	70.2	113.69	1.618	
13,300.0	7,535.0	7,543.0	7,543.0	102.3	13.2	90.00	-5,473.3	-457.1	250.6	135.2	115.43	2.171	
13,400.0	7,535.0	7,543.0	7,543.0	104.0	13.2	90.00	-5,473.3	-457.1	334.3	217.2	117.17	2.853	
13,500.0	7,535.0	7,543.0	7,543.0	105.8	13.2	90.00	-5,473.3	-457.1	425.2	306.2	118.91	3.575	
13,600.0	7,535.0	7,543.0	7,543.0	107.5	13.2	90.00	-5,473.3	-457.1	519.4	398.7	120.66	4.304	
13,700.0	7,535.0	7,543.0	7,543.0	109.3	13.2	90.00	-5,473.3	-457.1	615.4	493.0	122.40	5.028	
13,800.0	7,535.0	7,543.0	7,543.0	111.0	13.2	90.00	-5,473.3	-457.1	712.5	588.4	124.14	5.740	
13,900.0	7,535.0	7,543.0	7,543.0	112.7	13.2	90.00	-5,473.3	-457.1	810.3	684.5	125.88	6.437	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-4 (EXISTING) - Existing - Existing													<b>Offset Site Error:</b> 0.0 ft
Survey Program: 0-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
14,000.0	7,535.0	7,543.0	7,543.0	114.5	13.2	90.00	-5,473.3	-457.1	908.6	781.0	127.63	7.120	
14,100.0	7,535.0	7,543.0	7,543.0	116.2	13.2	90.00	-5,473.3	-457.1	1,007.3	877.9	129.37	7.786	
14,200.0	7,535.0	7,543.0	7,543.0	118.0	13.2	90.00	-5,473.3	-457.1	1,106.2	975.0	131.11	8.437	
14,300.0	7,535.0	7,543.0	7,543.0	119.7	13.2	90.00	-5,473.3	-457.1	1,205.2	1,072.4	132.86	9.071	
14,400.0	7,535.0	7,543.0	7,543.0	121.5	13.2	90.00	-5,473.3	-457.1	1,304.4	1,169.8	134.60	9.691	
14,500.0	7,535.0	7,543.0	7,543.0	123.2	13.2	90.00	-5,473.3	-457.1	1,403.8	1,267.4	136.35	10.295	
14,600.0	7,535.0	7,543.0	7,543.0	124.9	13.2	90.00	-5,473.3	-457.1	1,503.2	1,365.1	138.09	10.885	
14,672.4	7,535.0	7,543.0	7,543.0	126.2	13.2	90.00	-5,473.3	-457.1	1,575.1	1,435.8	139.36	11.303	
14,672.9	7,535.0	7,543.0	7,543.0	126.2	13.2	90.00	-5,473.3	-457.1	1,575.7	1,436.3	139.37	11.306	





# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-6 (EXISTING) - Existing - Existing												Offset Site Error: 0.0 ft			
Survey Program: 0-MWD														Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	36.0	36.0	0.0	0.1	175.35	-6,666.3	542.7	6,688.4						
100.0	100.0	136.0	136.0	0.2	0.2	175.35	-6,666.3	542.7	6,688.4	6,688.0	0.39	N/A			
200.0	200.0	236.0	236.0	0.3	0.4	175.35	-6,666.3	542.7	6,688.4	6,687.6	0.74	9,059.449			
300.0	300.0	336.0	336.0	0.5	0.6	175.35	-6,666.3	542.7	6,688.4	6,687.3	1.09	6,151.119			
400.0	400.0	436.0	436.0	0.7	0.8	175.35	-6,666.3	542.7	6,688.4	6,686.9	1.44	4,656.315			
500.0	500.0	536.0	536.0	0.8	0.9	175.35	-6,666.3	542.7	6,688.4	6,686.6	1.79	3,745.990			
600.0	600.0	636.0	636.0	1.0	1.1	175.35	-6,666.3	542.7	6,688.4	6,686.2	2.13	3,133.399			
700.0	700.0	736.0	736.0	1.2	1.3	175.35	-6,666.3	542.7	6,688.4	6,685.9	2.48	2,693.006			
800.0	800.0	836.0	836.0	1.4	1.5	175.35	-6,666.3	542.7	6,688.4	6,685.5	2.83	2,361.151			
900.0	900.0	936.0	936.0	1.5	1.6	175.35	-6,666.3	542.7	6,688.4	6,685.2	3.18	2,102.111			
1,000.0	1,000.0	1,036.0	1,036.0	1.7	1.8	175.35	-6,666.3	542.7	6,688.4	6,684.8	3.53	1,894.289			
1,100.0	1,100.0	1,136.0	1,136.0	1.9	2.0	175.35	-6,666.3	542.7	6,688.4	6,684.5	3.88	1,723.863			
1,200.0	1,200.0	1,236.0	1,236.0	2.1	2.2	-132.42	-6,666.3	542.7	6,688.9	6,684.7	4.23	1,581.740			
1,300.0	1,300.0	1,336.0	1,336.0	2.2	2.3	-132.42	-6,666.3	542.7	6,690.7	6,686.1	4.58	1,461.449			
1,400.0	1,399.9	1,435.9	1,435.9	2.4	2.5	-132.43	-6,666.3	542.7	6,693.7	6,688.7	4.93	1,358.097			
1,500.0	1,499.7	1,535.7	1,535.7	2.6	2.7	-132.44	-6,666.3	542.7	6,697.8	6,692.5	5.28	1,268.083			
1,600.0	1,599.4	1,635.4	1,635.4	2.8	2.9	-132.45	-6,666.3	542.7	6,703.1	6,697.4	5.64	1,188.716			
1,619.7	1,619.0	1,655.0	1,655.0	2.8	2.9	-132.45	-6,666.3	542.7	6,704.3	6,698.6	5.71	1,174.183			
1,700.0	1,699.0	1,735.0	1,735.0	3.0	3.0	-132.49	-6,666.3	542.7	6,709.2	6,703.2	6.00	1,117.998			
1,800.0	1,798.5	1,834.5	1,834.5	3.2	3.2	-132.55	-6,666.3	542.7	6,715.3	6,709.0	6.37	1,054.825			
1,900.0	1,898.1	1,934.1	1,934.1	3.4	3.4	-132.61	-6,666.3	542.7	6,721.5	6,714.7	6.73	998.193			
2,000.0	1,997.7	2,033.7	2,033.7	3.6	3.5	-132.67	-6,666.3	542.7	6,727.6	6,720.5	7.10	947.185			
2,100.0	2,097.3	2,133.3	2,133.3	3.9	3.7	-132.72	-6,666.3	542.7	6,733.8	6,726.3	7.47	901.042			
2,200.0	2,196.9	2,232.9	2,232.9	4.1	3.9	-132.78	-6,666.3	542.7	6,739.9	6,732.1	7.85	859.124			
2,300.0	2,296.5	2,332.5	2,332.5	4.3	4.1	-132.83	-6,666.3	542.7	6,746.1	6,737.9	8.22	820.898			
2,400.0	2,396.1	2,432.1	2,432.1	4.5	4.2	-132.89	-6,666.3	542.7	6,752.3	6,743.7	8.59	785.910			
2,500.0	2,495.7	2,531.7	2,531.7	4.7	4.4	-132.95	-6,666.3	542.7	6,758.5	6,749.5	8.97	753.777			
2,600.0	2,595.3	2,631.3	2,631.3	5.0	4.6	-133.00	-6,666.3	542.7	6,764.7	6,755.3	9.34	724.172			
2,700.0	2,694.8	2,730.8	2,730.8	5.2	4.8	-133.06	-6,666.3	542.7	6,770.8	6,761.1	9.72	696.814			
2,800.0	2,794.4	2,830.4	2,830.4	5.4	4.9	-133.11	-6,666.3	542.7	6,777.1	6,767.0	10.09	671.463			
2,900.0	2,894.0	2,930.0	2,930.0	5.6	5.1	-133.17	-6,666.3	542.7	6,783.3	6,772.8	10.47	647.909			
3,000.0	2,993.6	3,029.6	3,029.6	5.9	5.3	-133.23	-6,666.3	542.7	6,789.5	6,778.6	10.85	625.971			
3,100.0	3,093.2	3,129.2	3,129.2	6.1	5.5	-133.28	-6,666.3	542.7	6,795.7	6,784.5	11.22	605.491			
3,200.0	3,192.8	3,228.8	3,228.8	6.3	5.6	-133.34	-6,666.3	542.7	6,801.9	6,790.3	11.60	586.331			
3,300.0	3,292.4	3,328.4	3,328.4	6.5	5.8	-133.39	-6,666.3	542.7	6,808.2	6,796.2	11.98	568.368			
3,400.0	3,392.0	3,428.0	3,428.0	6.8	6.0	-133.45	-6,666.3	542.7	6,814.4	6,802.0	12.36	551.495			
3,500.0	3,491.6	3,527.6	3,527.6	7.0	6.2	-133.50	-6,666.3	542.7	6,820.6	6,807.9	12.73	535.617			
3,600.0	3,591.1	3,627.1	3,627.1	7.2	6.3	-133.56	-6,666.3	542.7	6,826.9	6,813.8	13.11	520.650			
3,700.0	3,690.7	3,726.7	3,726.7	7.5	6.5	-133.61	-6,666.3	542.7	6,833.2	6,819.7	13.49	506.519			
3,800.0	3,790.3	3,826.3	3,826.3	7.7	6.7	-133.67	-6,666.3	542.7	6,839.4	6,825.5	13.87	493.155			
3,900.0	3,889.9	3,925.9	3,925.9	7.9	6.9	-133.72	-6,666.3	542.7	6,845.7	6,831.4	14.25	480.499			
4,000.0	3,989.5	4,025.5	4,025.5	8.2	7.0	-133.78	-6,666.3	542.7	6,852.0	6,837.3	14.63	468.496			
4,100.0	4,089.1	4,125.1	4,125.1	8.4	7.2	-133.83	-6,666.3	542.7	6,858.2	6,843.2	15.00	457.097			
4,200.0	4,188.7	4,224.7	4,224.7	8.6	7.4	-133.89	-6,666.3	542.7	6,864.5	6,849.2	15.38	446.259			
4,300.0	4,288.3	4,324.3	4,324.3	8.9	7.5	-133.94	-6,666.3	542.7	6,870.8	6,855.1	15.76	435.942			
4,400.0	4,387.9	4,423.9	4,423.9	9.1	7.7	-133.99	-6,666.3	542.7	6,877.1	6,861.0	16.14	426.108			
4,500.0	4,487.4	4,523.4	4,523.4	9.3	7.9	-134.05	-6,666.3	542.7	6,883.4	6,866.9	16.52	416.725			
4,600.0	4,587.0	4,623.0	4,623.0	9.6	8.1	-134.10	-6,666.3	542.7	6,889.8	6,872.9	16.90	407.763			
4,700.0	4,686.6	4,722.6	4,722.6	9.8	8.2	-134.16	-6,666.3	542.7	6,896.1	6,878.8	17.27	399.194			
4,800.0	4,786.2	4,822.2	4,822.2	10.0	8.4	-134.21	-6,666.3	542.7	6,902.4	6,884.8	17.65	390.994			
4,900.0	4,885.8	4,921.8	4,921.8	10.3	8.6	-134.26	-6,666.3	542.7	6,908.7	6,890.7	18.03	383.139			
5,000.0	4,985.4	5,021.4	5,021.4	10.5	8.8	-134.32	-6,666.3	542.7	6,915.1	6,896.7	18.41	375.607			

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-6 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program:		O-MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,085.0	5,121.0	5,121.0	10.7	8.9	-134.37	-6,666.3	542.7	6,921.4	6,902.6	18.79	368.380		
5,200.0	5,184.6	5,220.6	5,220.6	11.0	9.1	-134.42	-6,666.3	542.7	6,927.8	6,908.6	19.17	361.439		
5,300.0	5,284.2	5,320.2	5,320.2	11.2	9.3	-134.48	-6,666.3	542.7	6,934.1	6,914.6	19.55	354.768		
5,400.0	5,383.7	5,419.7	5,419.7	11.4	9.5	-134.53	-6,666.3	542.7	6,940.5	6,920.6	19.92	348.352		
5,500.0	5,483.3	5,519.3	5,519.3	11.7	9.6	-134.58	-6,666.3	542.7	6,946.9	6,926.6	20.30	342.176		
5,600.0	5,582.9	5,618.9	5,618.9	11.9	9.8	-134.64	-6,666.3	542.7	6,953.2	6,932.6	20.68	336.227		
5,700.0	5,682.5	5,718.5	5,718.5	12.1	10.0	-134.69	-6,666.3	542.7	6,959.6	6,938.6	21.06	330.492		
5,800.0	5,782.1	5,818.1	5,818.1	12.4	10.2	-134.74	-6,666.3	542.7	6,966.0	6,944.6	21.44	324.962		
5,900.0	5,881.7	5,917.7	5,917.7	12.6	10.3	-134.80	-6,666.3	542.7	6,972.4	6,950.6	21.81	319.624		
6,000.0	5,981.3	6,017.3	6,017.3	12.8	10.5	-134.85	-6,666.3	542.7	6,978.8	6,956.6	22.19	314.469		
6,100.0	6,080.9	6,116.9	6,116.9	13.1	10.7	-134.90	-6,666.3	542.7	6,985.2	6,962.6	22.57	309.487		
6,200.0	6,180.5	6,216.5	6,216.5	13.3	10.8	-134.95	-6,666.3	542.7	6,991.6	6,968.7	22.95	304.672		
6,300.0	6,280.0	6,316.0	6,316.0	13.5	11.0	-135.01	-6,666.3	542.7	6,998.0	6,974.7	23.33	300.013		
6,400.0	6,379.6	6,415.6	6,415.6	13.8	11.2	-135.06	-6,666.3	542.7	7,004.4	6,980.7	23.70	295.503		
6,500.0	6,479.2	6,515.2	6,515.2	14.0	11.4	-135.11	-6,666.3	542.7	7,010.9	6,986.8	24.08	291.137		
6,600.0	6,578.8	6,614.8	6,614.8	14.2	11.5	-135.16	-6,666.3	542.7	7,017.3	6,992.9	24.46	286.906		
6,700.0	6,678.4	6,714.4	6,714.4	14.5	11.7	-135.21	-6,666.3	542.7	7,023.7	6,998.9	24.84	282.805		
6,800.0	6,778.0	6,814.0	6,814.0	14.7	11.9	-135.27	-6,666.3	542.7	7,030.2	7,005.0	25.21	278.828		
6,900.0	6,877.6	6,913.6	6,913.6	14.9	12.1	-135.32	-6,666.3	542.7	7,036.6	7,011.1	25.59	274.969		
6,953.0	6,930.4	6,966.4	6,966.4	15.1	12.2	-135.35	-6,666.3	542.7	7,040.1	7,014.3	25.79	272.969		
7,000.0	6,977.2	7,013.2	7,013.2	15.1	12.2	-76.81	-6,666.3	542.7	7,041.2	7,015.2	25.96	271.229		
7,050.0	7,027.0	7,063.0	7,063.0	15.2	12.3	-38.08	-6,666.3	542.7	7,038.2	7,012.2	26.01	270.636		
7,100.0	7,076.2	7,112.2	7,112.2	15.2	12.4	-25.52	-6,666.3	542.7	7,030.9	7,004.9	25.91	271.324		
7,150.0	7,124.6	7,160.6	7,160.6	15.3	12.5	-20.09	-6,666.3	542.7	7,019.3	6,993.6	25.68	273.288		
7,200.0	7,171.8	7,207.8	7,207.8	15.2	12.6	-17.24	-6,666.3	542.7	7,003.5	6,978.2	25.33	276.539		
7,250.0	7,217.4	7,253.4	7,253.4	15.2	12.7	-15.62	-6,666.3	542.7	6,983.7	6,958.9	24.84	281.094		
7,300.0	7,261.1	7,297.1	7,297.1	15.2	12.7	-14.70	-6,666.3	542.7	6,960.0	6,935.8	24.25	286.964		
7,350.0	7,302.5	7,338.5	7,338.5	15.2	12.8	-14.24	-6,666.3	542.7	6,932.6	6,909.1	23.57	294.143		
7,400.0	7,341.3	7,377.3	7,377.3	15.1	12.9	-14.15	-6,666.3	542.7	6,901.7	6,878.9	22.81	302.573		
7,450.0	7,377.2	7,413.2	7,413.2	15.1	12.9	-14.39	-6,666.3	542.7	6,867.6	6,845.6	22.00	312.103		
7,500.0	7,410.0	7,446.0	7,446.0	15.1	13.0	-14.98	-6,666.3	542.7	6,830.4	6,809.2	21.19	322.404		
7,550.0	7,439.4	7,475.4	7,475.4	15.2	13.0	-15.96	-6,666.3	542.7	6,790.5	6,770.1	20.40	332.850		
7,600.0	7,465.2	7,501.2	7,501.2	15.2	13.1	-17.47	-6,666.3	542.7	6,748.1	6,728.4	19.71	342.307		
7,650.0	7,487.1	7,523.1	7,523.1	15.3	13.1	-19.77	-6,666.3	542.7	6,703.7	6,684.5	19.22	348.806		
7,700.0	7,505.1	7,541.1	7,541.1	15.5	13.2	-23.36	-6,666.3	542.7	6,657.5	6,638.4	19.07	349.024		
7,750.0	7,518.9	7,554.9	7,554.9	15.7	13.2	-29.30	-6,666.3	542.7	6,609.9	6,590.3	19.58	337.520		
7,800.0	7,528.5	7,564.5	7,564.5	15.9	13.2	-40.20	-6,666.3	542.7	6,561.3	6,539.9	21.39	306.734		
7,850.0	7,533.9	7,569.9	7,569.9	16.2	13.2	-62.51	-6,666.3	542.7	6,511.9	6,486.6	25.35	256.869		
7,886.2	7,535.0	7,571.0	7,571.0	16.4	13.2	-90.00	-6,666.3	542.7	6,476.0	6,448.3	27.74	233.429		
7,900.0	7,535.0	7,571.0	7,571.0	16.5	13.2	-90.00	-6,666.3	542.7	6,462.3	6,434.5	27.85	232.072		
8,000.0	7,535.0	7,571.0	7,571.0	17.2	13.2	-90.00	-6,666.3	542.7	6,363.0	6,334.3	28.69	221.820		
8,100.0	7,535.0	7,571.0	7,571.0	18.1	13.2	-90.00	-6,666.3	542.7	6,263.7	6,234.1	29.67	211.114		
8,200.0	7,535.0	7,571.0	7,571.0	19.1	13.2	-90.00	-6,666.3	542.7	6,164.5	6,133.7	30.77	200.309		
8,300.0	7,535.0	7,571.0	7,571.0	20.2	13.2	-90.00	-6,666.3	542.7	6,065.2	6,033.3	31.98	189.663		
8,400.0	7,535.0	7,571.0	7,571.0	21.4	13.2	-90.00	-6,666.3	542.7	5,966.0	5,932.8	33.26	179.349		
8,500.0	7,535.0	7,571.0	7,571.0	22.7	13.2	-90.00	-6,666.3	542.7	5,866.8	5,832.2	34.62	169.477		
8,600.0	7,535.0	7,571.0	7,571.0	24.0	13.2	-90.00	-6,666.3	542.7	5,767.7	5,731.7	36.02	160.104		
8,700.0	7,535.0	7,571.0	7,571.0	25.4	13.2	-90.00	-6,666.3	542.7	5,668.5	5,631.1	37.48	151.252		
8,800.0	7,535.0	7,571.0	7,571.0	26.9	13.2	-90.00	-6,666.3	542.7	5,569.5	5,530.5	38.97	142.924		
8,900.0	7,535.0	7,571.0	7,571.0	28.3	13.2	-90.00	-6,666.3	542.7	5,470.4	5,429.9	40.49	135.106		
9,000.0	7,535.0	7,571.0	7,571.0	29.8	13.2	-90.00	-6,666.3	542.7	5,371.4	5,329.3	42.04	127.774		
9,100.0	7,535.0	7,571.0	7,571.0	31.3	13.2	-90.00	-6,666.3	542.7	5,272.4	5,228.8	43.61	120.901		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-6 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
9,200.0	7,535.0	7,571.0	7,571.0	32.9	13.2	-90.00	-6,666.3	542.7	5,173.4	5,128.2	45.20	114.459		
9,300.0	7,535.0	7,571.0	7,571.0	34.4	13.2	-90.00	-6,666.3	542.7	5,074.5	5,027.7	46.81	108.417		
9,400.0	7,535.0	7,571.0	7,571.0	36.0	13.2	-90.00	-6,666.3	542.7	4,975.6	4,927.2	48.43	102.747		
9,500.0	7,535.0	7,571.0	7,571.0	37.6	13.2	-90.00	-6,666.3	542.7	4,876.8	4,826.8	50.06	97.421		
9,600.0	7,535.0	7,571.0	7,571.0	39.2	13.2	-90.00	-6,666.3	542.7	4,778.0	4,726.3	51.70	92.414		
9,700.0	7,535.0	7,571.0	7,571.0	40.9	13.2	-90.00	-6,666.3	542.7	4,679.3	4,626.0	53.36	87.700		
9,800.0	7,535.0	7,571.0	7,571.0	42.5	13.2	-90.00	-6,666.3	542.7	4,580.7	4,525.6	55.02	83.258		
9,900.0	7,535.0	7,571.0	7,571.0	44.1	13.2	-90.00	-6,666.3	542.7	4,482.0	4,425.4	56.69	79.068		
10,000.0	7,535.0	7,571.0	7,571.0	45.8	13.2	-90.00	-6,666.3	542.7	4,383.5	4,325.1	58.36	75.110		
10,100.0	7,535.0	7,571.0	7,571.0	47.4	13.2	-90.00	-6,666.3	542.7	4,285.0	4,225.0	60.04	71.366		
10,200.0	7,535.0	7,571.0	7,571.0	49.1	13.2	-90.00	-6,666.3	542.7	4,186.6	4,124.9	61.73	67.823		
10,300.0	7,535.0	7,571.0	7,571.0	50.8	13.2	-90.00	-6,666.3	542.7	4,088.3	4,024.9	63.42	64.464		
10,400.0	7,535.0	7,571.0	7,571.0	52.5	13.2	-90.00	-6,666.3	542.7	3,990.1	3,924.9	65.12	61.277		
10,500.0	7,535.0	7,571.0	7,571.0	54.1	13.2	-90.00	-6,666.3	542.7	3,891.9	3,825.1	66.81	58.249		
10,600.0	7,535.0	7,571.0	7,571.0	55.8	13.2	-90.00	-6,666.3	542.7	3,793.8	3,725.3	68.52	55.371		
10,700.0	7,535.0	7,571.0	7,571.0	57.5	13.2	-90.00	-6,666.3	542.7	3,695.9	3,625.7	70.22	52.631		
10,800.0	7,535.0	7,571.0	7,571.0	59.2	13.2	-90.00	-6,666.3	542.7	3,598.1	3,526.1	71.93	50.020		
10,900.0	7,535.0	7,571.0	7,571.0	60.9	13.2	-90.00	-6,666.3	542.7	3,500.3	3,426.7	73.64	47.531		
11,000.0	7,535.0	7,571.0	7,571.0	62.6	13.2	-90.00	-6,666.3	542.7	3,402.7	3,327.4	75.36	45.155		
11,100.0	7,535.0	7,571.0	7,571.0	64.3	13.2	-90.00	-6,666.3	542.7	3,305.3	3,228.2	77.07	42.885		
11,200.0	7,535.0	7,571.0	7,571.0	66.0	13.2	-90.00	-6,666.3	542.7	3,208.0	3,129.2	78.79	40.716		
11,300.0	7,535.0	7,571.0	7,571.0	67.7	13.2	-90.00	-6,666.3	542.7	3,110.9	3,030.4	80.51	38.640		
11,400.0	7,535.0	7,571.0	7,571.0	69.4	13.2	-90.00	-6,666.3	542.7	3,014.0	2,931.8	82.23	36.652		
11,496.2	7,535.0	7,571.0	7,571.0	71.1	13.2	-90.00	-6,666.3	542.7	2,921.0	2,837.1	83.89	34.819		
11,500.0	7,535.0	7,571.0	7,571.0	71.2	13.2	-90.00	-6,666.3	542.7	2,917.3	2,833.3	83.96	34.748		
11,600.0	7,535.0	7,571.0	7,571.0	72.9	13.2	-90.00	-6,666.3	542.7	2,820.8	2,735.1	85.68	32.922		
11,700.0	7,535.0	7,571.0	7,571.0	74.6	13.2	-90.00	-6,666.3	542.7	2,724.6	2,637.1	87.41	31.171		
11,800.0	7,535.0	7,571.0	7,571.0	76.3	13.2	-90.00	-6,666.3	542.7	2,628.6	2,539.5	89.14	29.490		
11,900.0	7,535.0	7,571.0	7,571.0	78.0	13.2	-90.00	-6,666.3	542.7	2,533.0	2,442.1	90.86	27.876		
12,000.0	7,535.0	7,571.0	7,571.0	79.7	13.2	-90.00	-6,666.3	542.7	2,437.7	2,345.1	92.59	26.326		
12,100.0	7,535.0	7,571.0	7,571.0	81.5	13.2	-90.00	-6,666.3	542.7	2,342.8	2,248.5	94.33	24.837		
12,200.0	7,535.0	7,571.0	7,571.0	83.2	13.2	-90.00	-6,666.3	542.7	2,248.3	2,152.3	96.06	23.406		
12,296.2	7,535.0	7,571.0	7,571.0	84.9	13.2	-90.00	-6,666.3	542.7	2,158.0	2,060.2	97.72	22.082		
12,300.0	7,535.0	7,571.0	7,571.0	84.9	13.2	-90.00	-6,666.3	542.7	2,154.4	2,056.6	97.80	22.028		
12,400.0	7,535.0	7,571.0	7,571.0	86.6	13.2	-90.00	-6,666.3	542.7	2,061.7	1,962.0	99.74	20.671		
12,492.9	7,535.0	7,571.0	7,571.0	88.3	13.2	-90.00	-6,666.3	542.7	1,977.5	1,876.1	101.45	19.492		
12,500.0	7,535.0	7,571.0	7,571.0	88.4	13.2	-90.00	-6,666.3	542.7	1,971.2	1,869.6	101.58	19.406		
12,600.0	7,535.0	7,571.0	7,571.0	90.1	13.2	-90.00	-6,666.3	542.7	1,882.4	1,779.0	103.31	18.220		
12,700.0	7,535.0	7,571.0	7,571.0	91.9	13.2	-90.00	-6,666.3	542.7	1,794.7	1,689.6	105.05	17.084		
12,800.0	7,535.0	7,571.0	7,571.0	93.6	13.2	-90.00	-6,666.3	542.7	1,708.4	1,601.6	106.79	15.998		
12,900.0	7,535.0	7,571.0	7,571.0	95.3	13.2	-90.00	-6,666.3	542.7	1,623.6	1,515.1	108.52	14.961		
13,000.0	7,535.0	7,571.0	7,571.0	97.1	13.2	-90.00	-6,666.3	542.7	1,540.7	1,430.4	110.26	13.973		
13,100.0	7,535.0	7,571.0	7,571.0	98.8	13.2	-90.00	-6,666.3	542.7	1,459.9	1,347.9	112.00	13.035		
13,200.0	7,535.0	7,571.0	7,571.0	100.5	13.2	-90.00	-6,666.3	542.7	1,381.7	1,267.9	113.74	12.148		
13,300.0	7,535.0	7,571.0	7,571.0	102.3	13.2	-90.00	-6,666.3	542.7	1,306.4	1,190.9	115.48	11.313		
13,400.0	7,535.0	7,571.0	7,571.0	104.0	13.2	-90.00	-6,666.3	542.7	1,234.6	1,117.4	117.22	10.532		
13,500.0	7,535.0	7,571.0	7,571.0	105.8	13.2	-90.00	-6,666.3	542.7	1,167.0	1,048.0	118.96	9.810		
13,600.0	7,535.0	7,571.0	7,571.0	107.5	13.2	-90.00	-6,666.3	542.7	1,104.3	983.6	120.71	9.149		
13,700.0	7,535.0	7,571.0	7,571.0	109.3	13.2	-90.00	-6,666.3	542.7	1,047.5	925.0	122.45	8.554		
13,800.0	7,535.0	7,571.0	7,571.0	111.0	13.2	-90.00	-6,666.3	542.7	997.4	873.2	124.19	8.031		
13,900.0	7,535.0	7,571.0	7,571.0	112.7	13.2	-90.00	-6,666.3	542.7	955.2	829.3	125.93	7.585		
14,000.0	7,535.0	7,571.0	7,571.0	114.5	13.2	-90.00	-6,666.3	542.7	922.0	794.3	127.68	7.221		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-6 (EXISTING) - Existing - Existing												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	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	
14,100.0	7,535.0	7,571.0	7,571.0	116.2	13.2	-90.00	-6,666.3	542.7	898.7	769.3	129.42	6.944	
14,200.0	7,535.0	7,571.0	7,571.0	118.0	13.2	-90.00	-6,666.3	542.7	886.2	755.0	131.16	6.756	
14,261.9	7,535.0	7,571.0	7,571.0	119.0	13.2	-90.00	-6,666.3	542.7	884.0	751.8	132.24	6.685 CC, ES	
14,300.0	7,535.0	7,571.0	7,571.0	119.7	13.2	-90.00	-6,666.3	542.7	884.8	751.9	132.91	6.657	
14,400.0	7,535.0	7,571.0	7,571.0	121.5	13.2	-90.00	-6,666.3	542.7	894.7	760.1	134.65	6.645 SF	
14,500.0	7,535.0	7,571.0	7,571.0	123.2	13.2	-90.00	-6,666.3	542.7	915.5	779.1	136.40	6.712	
14,600.0	7,535.0	7,571.0	7,571.0	124.9	13.2	-90.00	-6,666.3	542.7	946.5	808.3	138.14	6.851	
14,672.4	7,535.0	7,571.0	7,571.0	126.2	13.2	-90.00	-6,666.3	542.7	974.7	835.3	139.41	6.992	
14,672.9	7,535.0	7,571.0	7,571.0	126.2	13.2	-90.00	-6,666.3	542.7	974.9	835.5	139.41	6.993	



Cathedral Energy Services  
Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 1 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: O-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	-178.06	-3,821.7	-129.2	3,823.8					
100.0	100.0	96.0	96.0	0.2	0.2	-178.06	-3,821.7	-129.2	3,823.8	3,823.5	0.32	N/A		
200.0	200.0	196.0	196.0	0.3	0.3	-178.06	-3,821.7	-129.2	3,823.8	3,823.2	0.67	5,720.363		
300.0	300.0	296.0	296.0	0.5	0.5	-178.06	-3,821.7	-129.2	3,823.8	3,822.8	1.02	3,757.975		
400.0	400.0	396.0	396.0	0.7	0.7	-178.06	-3,821.7	-129.2	3,823.8	3,822.5	1.37	2,798.083		
500.0	500.0	496.0	496.0	0.8	0.9	-178.06	-3,821.7	-129.2	3,823.8	3,822.1	1.72	2,228.789		
600.0	600.0	596.0	596.0	1.0	1.0	-178.06	-3,821.7	-129.2	3,823.8	3,821.8	2.06	1,851.986		
700.0	700.0	696.0	696.0	1.2	1.2	-178.06	-3,821.7	-129.2	3,823.8	3,821.4	2.41	1,584.164		
800.0	800.0	796.0	796.0	1.4	1.4	-178.06	-3,821.7	-129.2	3,823.8	3,821.1	2.76	1,384.017		
900.0	900.0	896.0	896.0	1.5	1.6	-178.06	-3,821.7	-129.2	3,823.8	3,820.7	3.11	1,228.771		
1,000.0	1,000.0	996.0	996.0	1.7	1.7	-178.06	-3,821.7	-129.2	3,823.8	3,820.4	3.46	1,104.841		
1,100.0	1,100.0	1,096.0	1,096.0	1.9	1.9	-178.06	-3,821.7	-129.2	3,823.8	3,820.0	3.81	1,003.619		
1,200.0	1,200.0	1,196.0	1,196.0	2.1	2.1	-125.83	-3,821.7	-129.2	3,824.4	3,820.2	4.16	919.511		
1,300.0	1,300.0	1,296.0	1,296.0	2.2	2.3	-125.85	-3,821.7	-129.2	3,825.9	3,821.4	4.51	848.548		
1,400.0	1,399.9	1,395.9	1,395.9	2.4	2.4	-125.88	-3,821.7	-129.2	3,828.4	3,823.6	4.86	787.722		
1,500.0	1,499.7	1,495.7	1,495.7	2.6	2.6	-125.93	-3,821.7	-129.2	3,832.0	3,826.8	5.21	734.827		
1,600.0	1,599.4	1,595.4	1,595.4	2.8	2.8	-125.99	-3,821.7	-129.2	3,836.6	3,831.1	5.57	688.228		
1,619.7	1,619.0	1,615.0	1,615.0	2.8	2.8	-126.00	-3,821.7	-129.2	3,837.7	3,832.0	5.65	679.703		
1,700.0	1,699.0	1,695.0	1,695.0	3.0	3.0	-126.09	-3,821.7	-129.2	3,842.0	3,836.0	5.94	646.822		
1,800.0	1,798.5	1,794.5	1,794.5	3.2	3.1	-126.20	-3,821.7	-129.2	3,847.3	3,841.0	6.31	609.886		
1,900.0	1,898.1	1,894.1	1,894.1	3.4	3.3	-126.30	-3,821.7	-129.2	3,852.7	3,846.0	6.68	576.813		
2,000.0	1,997.7	1,993.7	1,993.7	3.6	3.5	-126.41	-3,821.7	-129.2	3,858.1	3,851.0	7.05	547.065		
2,100.0	2,097.3	2,093.3	2,093.3	3.9	3.7	-126.52	-3,821.7	-129.2	3,863.5	3,856.1	7.43	520.189		
2,200.0	2,196.9	2,192.9	2,192.9	4.1	3.8	-126.63	-3,821.7	-129.2	3,868.9	3,861.1	7.80	495.809		
2,300.0	2,296.5	2,292.5	2,292.5	4.3	4.0	-126.74	-3,821.7	-129.2	3,874.3	3,866.1	8.18	473.605		
2,400.0	2,396.1	2,392.1	2,392.1	4.5	4.2	-126.84	-3,821.7	-129.2	3,879.8	3,871.2	8.56	453.309		
2,500.0	2,495.7	2,491.7	2,491.7	4.7	4.3	-126.95	-3,821.7	-129.2	3,885.2	3,876.3	8.94	434.693		
2,600.0	2,595.3	2,591.3	2,591.3	5.0	4.5	-127.05	-3,821.7	-129.2	3,890.7	3,881.4	9.32	417.564		
2,700.0	2,694.8	2,690.8	2,690.8	5.2	4.7	-127.16	-3,821.7	-129.2	3,896.2	3,886.5	9.70	401.753		
2,800.0	2,794.4	2,790.4	2,790.4	5.4	4.9	-127.27	-3,821.7	-129.2	3,901.6	3,891.6	10.08	387.119		
2,900.0	2,894.0	2,890.0	2,890.0	5.6	5.0	-127.37	-3,821.7	-129.2	3,907.2	3,896.7	10.46	373.538		
3,000.0	2,993.6	2,989.6	2,989.6	5.9	5.2	-127.48	-3,821.7	-129.2	3,912.7	3,901.8	10.84	360.902		
3,100.0	3,093.2	3,089.2	3,089.2	6.1	5.4	-127.58	-3,821.7	-129.2	3,918.2	3,907.0	11.22	349.118		
3,200.0	3,192.8	3,188.8	3,188.8	6.3	5.6	-127.69	-3,821.7	-129.2	3,923.7	3,912.1	11.61	338.103		
3,300.0	3,292.4	3,288.4	3,288.4	6.5	5.7	-127.79	-3,821.7	-129.2	3,929.3	3,917.3	11.99	327.787		
3,400.0	3,392.0	3,388.0	3,388.0	6.8	5.9	-127.89	-3,821.7	-129.2	3,934.9	3,922.5	12.37	318.106		
3,500.0	3,491.6	3,487.6	3,487.6	7.0	6.1	-128.00	-3,821.7	-129.2	3,940.5	3,927.7	12.75	309.004		
3,600.0	3,591.1	3,587.1	3,587.1	7.2	6.3	-128.10	-3,821.7	-129.2	3,946.1	3,932.9	13.13	300.431		
3,700.0	3,690.7	3,686.7	3,686.7	7.5	6.4	-128.21	-3,821.7	-129.2	3,951.7	3,938.2	13.52	292.343		
3,800.0	3,790.3	3,786.3	3,786.3	7.7	6.6	-128.31	-3,821.7	-129.2	3,957.3	3,943.4	13.90	284.700		
3,900.0	3,889.9	3,885.9	3,885.9	7.9	6.8	-128.41	-3,821.7	-129.2	3,962.9	3,948.6	14.28	277.468		
4,000.0	3,989.5	3,985.5	3,985.5	8.2	7.0	-128.51	-3,821.7	-129.2	3,968.6	3,953.9	14.67	270.613		
4,100.0	4,089.1	4,085.1	4,085.1	8.4	7.1	-128.61	-3,821.7	-129.2	3,974.2	3,959.2	15.05	264.109		
4,200.0	4,188.7	4,184.7	4,184.7	8.6	7.3	-128.72	-3,821.7	-129.2	3,979.9	3,964.5	15.43	257.928		
4,300.0	4,288.3	4,284.3	4,284.3	8.9	7.5	-128.82	-3,821.7	-129.2	3,985.6	3,969.8	15.81	252.048		
4,400.0	4,387.9	4,383.9	4,383.9	9.1	7.7	-128.92	-3,821.7	-129.2	3,991.3	3,975.1	16.20	246.448		
4,500.0	4,487.4	4,483.4	4,483.4	9.3	7.8	-129.02	-3,821.7	-129.2	3,997.0	3,980.4	16.58	241.107		
4,600.0	4,587.0	4,583.0	4,583.0	9.6	8.0	-129.12	-3,821.7	-129.2	4,002.7	3,985.8	16.96	236.009		
4,700.0	4,686.6	4,682.6	4,682.6	9.8	8.2	-129.22	-3,821.7	-129.2	4,008.5	3,991.1	17.34	231.138		
4,800.0	4,786.2	4,782.2	4,782.2	10.0	8.3	-129.32	-3,821.7	-129.2	4,014.2	3,996.5	17.72	226.479		
4,900.0	4,885.8	4,881.8	4,881.8	10.3	8.5	-129.42	-3,821.7	-129.2	4,020.0	4,001.9	18.11	222.018		
5,000.0	4,985.4	4,981.4	4,981.4	10.5	8.7	-129.52	-3,821.7	-129.2	4,025.7	4,007.3	18.49	217.743		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 1 (EXISTING) - Existing - Existing													Offset Site Error: 0.0 ft	
Survey Program: O-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,085.0	5,081.0	5,081.0	10.7	8.9	-129.62	-3,821.7	-129.2	4,031.5	4,012.7	18.87	213.644		
5,200.0	5,184.6	5,180.6	5,180.6	11.0	9.0	-129.72	-3,821.7	-129.2	4,037.3	4,018.1	19.25	209.708		
5,300.0	5,284.2	5,280.2	5,280.2	11.2	9.2	-129.82	-3,821.7	-129.2	4,043.1	4,023.5	19.63	205.928		
5,400.0	5,383.7	5,379.7	5,379.7	11.4	9.4	-129.91	-3,821.7	-129.2	4,049.0	4,028.9	20.02	202.294		
5,500.0	5,483.3	5,479.3	5,479.3	11.7	9.6	-130.01	-3,821.7	-129.2	4,054.8	4,034.4	20.40	198.797		
5,600.0	5,582.9	5,578.9	5,578.9	11.9	9.7	-130.11	-3,821.7	-129.2	4,060.6	4,039.9	20.78	195.431		
5,700.0	5,682.5	5,678.5	5,678.5	12.1	9.9	-130.21	-3,821.7	-129.2	4,066.5	4,045.3	21.16	192.187		
5,800.0	5,782.1	5,778.1	5,778.1	12.4	10.1	-130.30	-3,821.7	-129.2	4,072.4	4,050.8	21.54	189.060		
5,900.0	5,881.7	5,877.7	5,877.7	12.6	10.3	-130.40	-3,821.7	-129.2	4,078.2	4,056.3	21.92	186.044		
6,000.0	5,981.3	5,977.3	5,977.3	12.8	10.4	-130.50	-3,821.7	-129.2	4,084.1	4,061.8	22.30	183.132		
6,100.0	6,080.9	6,076.9	6,076.9	13.1	10.6	-130.59	-3,821.7	-129.2	4,090.0	4,067.3	22.68	180.320		
6,200.0	6,180.5	6,176.5	6,176.5	13.3	10.8	-130.69	-3,821.7	-129.2	4,095.9	4,072.9	23.06	177.602		
6,300.0	6,280.0	6,276.0	6,276.0	13.5	11.0	-130.78	-3,821.7	-129.2	4,101.9	4,078.4	23.44	174.973		
6,400.0	6,379.6	6,375.6	6,375.6	13.8	11.1	-130.88	-3,821.7	-129.2	4,107.8	4,084.0	23.82	172.431		
6,500.0	6,479.2	6,475.2	6,475.2	14.0	11.3	-130.98	-3,821.7	-129.2	4,113.8	4,089.5	24.20	169.969		
6,600.0	6,578.8	6,574.8	6,574.8	14.2	11.5	-131.07	-3,821.7	-129.2	4,119.7	4,095.1	24.58	167.585		
6,700.0	6,678.4	6,674.4	6,674.4	14.5	11.6	-131.17	-3,821.7	-129.2	4,125.7	4,100.7	24.96	165.276		
6,800.0	6,778.0	6,774.0	6,774.0	14.7	11.8	-131.26	-3,821.7	-129.2	4,131.7	4,106.3	25.34	163.036		
6,900.0	6,877.6	6,873.6	6,873.6	14.9	12.0	-131.35	-3,821.7	-129.2	4,137.7	4,111.9	25.72	160.865		
6,953.0	6,930.4	6,926.4	6,926.4	15.1	12.1	-131.40	-3,821.7	-129.2	4,140.8	4,114.9	25.92	159.739		
7,000.0	6,977.2	6,973.2	6,973.2	15.1	12.2	-72.89	-3,821.7	-129.2	4,141.7	4,115.7	26.09	158.771		
7,050.0	7,027.0	7,023.0	7,023.0	15.2	12.3	-34.17	-3,821.7	-129.2	4,138.5	4,112.4	26.12	158.417		
7,100.0	7,076.2	7,072.2	7,072.2	15.2	12.3	-21.57	-3,821.7	-129.2	4,130.9	4,104.9	26.02	158.755		
7,150.0	7,124.6	7,120.6	7,120.6	15.3	12.4	-16.08	-3,821.7	-129.2	4,119.0	4,093.2	25.78	159.784		
7,200.0	7,171.8	7,167.8	7,167.8	15.2	12.5	-13.13	-3,821.7	-129.2	4,103.0	4,077.6	25.40	161.515		
7,250.0	7,217.4	7,213.4	7,213.4	15.2	12.6	-11.36	-3,821.7	-129.2	4,082.9	4,058.0	24.90	163.963		
7,300.0	7,261.1	7,257.1	7,257.1	15.2	12.7	-10.25	-3,821.7	-129.2	4,058.9	4,034.6	24.28	167.147		
7,350.0	7,302.5	7,298.5	7,298.5	15.2	12.7	-9.55	-3,821.7	-129.2	4,031.1	4,007.6	23.56	171.079		
7,400.0	7,341.3	7,337.3	7,337.3	15.1	12.8	-9.14	-3,821.7	-129.2	3,999.9	3,977.1	22.76	175.759		
7,450.0	7,377.2	7,373.2	7,373.2	15.1	12.9	-8.97	-3,821.7	-129.2	3,965.4	3,943.5	21.89	181.155		
7,500.0	7,410.0	7,406.0	7,406.0	15.1	12.9	-9.02	-3,821.7	-129.2	3,927.8	3,906.9	20.98	187.175		
7,550.0	7,439.4	7,435.4	7,435.4	15.2	13.0	-9.29	-3,821.7	-129.2	3,887.6	3,867.5	20.08	193.627		
7,600.0	7,465.2	7,461.2	7,461.2	15.2	13.0	-9.85	-3,821.7	-129.2	3,844.9	3,825.7	19.21	200.151		
7,650.0	7,487.1	7,483.1	7,483.1	15.3	13.1	-10.80	-3,821.7	-129.2	3,800.2	3,781.7	18.44	206.119		
7,700.0	7,505.1	7,501.1	7,501.1	15.5	13.1	-12.42	-3,821.7	-129.2	3,753.6	3,735.8	17.84	210.451		
7,750.0	7,518.9	7,514.9	7,514.9	15.7	13.1	-15.32	-3,821.7	-129.2	3,705.7	3,688.2	17.55	211.126		
7,800.0	7,528.5	7,524.5	7,524.5	15.9	13.1	-21.48	-3,821.7	-129.2	3,656.8	3,638.8	18.00	203.156		
7,850.0	7,533.9	7,529.9	7,529.9	16.2	13.1	-40.31	-3,821.7	-129.2	3,607.1	3,585.8	21.35	168.973		
7,886.2	7,535.0	7,531.0	7,531.0	16.4	13.1	-90.00	-3,821.7	-129.2	3,571.0	3,543.4	27.67	129.043		
7,900.0	7,535.0	7,531.0	7,531.0	16.5	13.1	-90.00	-3,821.7	-129.2	3,557.2	3,529.5	27.78	128.067		
8,000.0	7,535.0	7,531.0	7,531.0	17.2	13.1	-90.00	-3,821.7	-129.2	3,457.4	3,428.7	28.62	120.820		
8,100.0	7,535.0	7,531.0	7,531.0	18.1	13.1	-90.00	-3,821.7	-129.2	3,357.5	3,327.9	29.60	113.429		
8,200.0	7,535.0	7,531.0	7,531.0	19.1	13.1	-90.00	-3,821.7	-129.2	3,257.6	3,226.9	30.70	106.095		
8,300.0	7,535.0	7,531.0	7,531.0	20.2	13.1	-90.00	-3,821.7	-129.2	3,157.8	3,125.9	31.91	98.961		
8,400.0	7,535.0	7,531.0	7,531.0	21.4	13.1	-90.00	-3,821.7	-129.2	3,057.9	3,024.8	33.19	92.121		
8,500.0	7,535.0	7,531.0	7,531.0	22.7	13.1	-90.00	-3,821.7	-129.2	2,958.1	2,923.6	34.55	85.625		
8,600.0	7,535.0	7,531.0	7,531.0	24.0	13.1	-90.00	-3,821.7	-129.2	2,858.3	2,822.3	35.95	79.497		
8,700.0	7,535.0	7,531.0	7,531.0	25.4	13.1	-90.00	-3,821.7	-129.2	2,758.5	2,721.1	37.41	73.742		
8,800.0	7,535.0	7,531.0	7,531.0	26.9	13.1	-90.00	-3,821.7	-129.2	2,658.7	2,619.8	38.90	68.351		
8,900.0	7,535.0	7,531.0	7,531.0	28.3	13.1	-90.00	-3,821.7	-129.2	2,558.9	2,518.5	40.42	63.309		
9,000.0	7,535.0	7,531.0	7,531.0	29.8	13.1	-90.00	-3,821.7	-129.2	2,459.2	2,417.2	41.97	58.596		
9,100.0	7,535.0	7,531.0	7,531.0	31.3	13.1	-90.00	-3,821.7	-129.2	2,359.5	2,315.9	43.54	54.192		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 1 (EXISTING) - Existing - Existing													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,200.0	7,535.0	7,531.0	7,531.0	32.9	13.1	-90.00	-3,821.7	-129.2	2,259.8	2,214.6	45.13	50.073		
9,300.0	7,535.0	7,531.0	7,531.0	34.4	13.1	-90.00	-3,821.7	-129.2	2,160.1	2,113.3	46.74	46.219		
9,400.0	7,535.0	7,531.0	7,531.0	36.0	13.1	-90.00	-3,821.7	-129.2	2,060.4	2,012.1	48.36	42.609		
9,500.0	7,535.0	7,531.0	7,531.0	37.6	13.1	-90.00	-3,821.7	-129.2	1,960.8	1,910.8	49.99	39.225		
9,600.0	7,535.0	7,531.0	7,531.0	39.2	13.1	-90.00	-3,821.7	-129.2	1,861.2	1,809.6	51.63	36.047		
9,700.0	7,535.0	7,531.0	7,531.0	40.9	13.1	-90.00	-3,821.7	-129.2	1,761.7	1,708.4	53.29	33.061		
9,800.0	7,535.0	7,531.0	7,531.0	42.5	13.1	-90.00	-3,821.7	-129.2	1,662.2	1,607.3	54.95	30.252		
9,900.0	7,535.0	7,531.0	7,531.0	44.1	13.1	-90.00	-3,821.7	-129.2	1,562.8	1,506.2	56.62	27.604		
10,000.0	7,535.0	7,531.0	7,531.0	45.8	13.1	-90.00	-3,821.7	-129.2	1,463.5	1,405.2	58.29	25.107		
10,100.0	7,535.0	7,531.0	7,531.0	47.4	13.1	-90.00	-3,821.7	-129.2	1,364.3	1,304.3	59.97	22.749		
10,200.0	7,535.0	7,531.0	7,531.0	49.1	13.1	-90.00	-3,821.7	-129.2	1,265.2	1,203.6	61.66	20.520		
10,300.0	7,535.0	7,531.0	7,531.0	50.8	13.1	-90.00	-3,821.7	-129.2	1,166.3	1,102.9	63.35	18.410		
10,400.0	7,535.0	7,531.0	7,531.0	52.5	13.1	-90.00	-3,821.7	-129.2	1,067.5	1,002.5	65.05	16.412		
10,500.0	7,535.0	7,531.0	7,531.0	54.1	13.1	-90.00	-3,821.7	-129.2	969.1	902.3	66.74	14.519		
10,600.0	7,535.0	7,531.0	7,531.0	55.8	13.1	-90.00	-3,821.7	-129.2	870.9	802.5	68.45	12.724		
10,700.0	7,535.0	7,531.0	7,531.0	57.5	13.1	-90.00	-3,821.7	-129.2	773.3	703.1	70.15	11.022		
10,800.0	7,535.0	7,531.0	7,531.0	59.2	13.1	-90.00	-3,821.7	-129.2	676.3	604.4	71.86	9.411		
10,900.0	7,535.0	7,531.0	7,531.0	60.9	13.1	-90.00	-3,821.7	-129.2	580.3	506.8	73.57	7.888		
11,000.0	7,535.0	7,531.0	7,531.0	62.6	13.1	-90.00	-3,821.7	-129.2	486.0	410.7	75.29	6.456		
11,100.0	7,535.0	7,531.0	7,531.0	64.3	13.1	-90.00	-3,821.7	-129.2	394.5	317.5	77.00	5.124		
11,200.0	7,535.0	7,531.0	7,531.0	66.0	13.1	-90.00	-3,821.7	-129.2	308.4	229.6	78.72	3.917		
11,300.0	7,535.0	7,531.0	7,531.0	67.7	13.1	-90.00	-3,821.7	-129.2	233.5	153.0	80.44	2.903		
11,400.0	7,535.0	7,531.0	7,531.0	69.4	13.1	-90.00	-3,821.7	-129.2	184.2	102.1	82.16	2.242		
11,452.8	7,535.0	7,531.0	7,531.0	70.3	13.1	-90.00	-3,821.7	-129.2	176.5	93.4	83.07	2.125	CC, ES, SF	
11,496.2	7,535.0	7,531.0	7,531.0	71.1	13.1	-90.00	-3,821.7	-129.2	181.7	97.9	83.82	2.168		
11,500.0	7,535.0	7,531.0	7,531.0	71.2	13.1	-90.00	-3,821.7	-129.2	182.7	98.8	83.89	2.178		
11,600.0	7,535.0	7,531.0	7,531.0	72.9	13.1	-90.00	-3,821.7	-129.2	229.8	144.2	85.61	2.684		
11,700.0	7,535.0	7,531.0	7,531.0	74.6	13.1	-90.00	-3,821.7	-129.2	303.7	216.4	87.34	3.477		
11,800.0	7,535.0	7,531.0	7,531.0	76.3	13.1	-90.00	-3,821.7	-129.2	389.4	300.4	89.07	4.373		
11,900.0	7,535.0	7,531.0	7,531.0	78.0	13.1	-90.00	-3,821.7	-129.2	480.7	389.9	90.79	5.295		
12,000.0	7,535.0	7,531.0	7,531.0	79.7	13.1	-90.00	-3,821.7	-129.2	574.9	482.4	92.52	6.214		
12,100.0	7,535.0	7,531.0	7,531.0	81.5	13.1	-90.00	-3,821.7	-129.2	670.8	576.5	94.26	7.117		
12,200.0	7,535.0	7,531.0	7,531.0	83.2	13.1	-90.00	-3,821.7	-129.2	767.7	671.7	95.99	7.998		
12,296.2	7,535.0	7,531.0	7,531.0	84.9	13.1	-90.00	-3,821.7	-129.2	861.6	764.0	97.65	8.823		
12,300.0	7,535.0	7,531.0	7,531.0	84.9	13.1	-90.00	-3,821.7	-129.2	865.3	767.6	97.73	8.854		
12,400.0	7,535.0	7,531.0	7,531.0	86.6	13.1	-90.00	-3,821.7	-129.2	963.8	864.1	99.67	9.670		
12,492.9	7,535.0	7,531.0	7,531.0	88.3	13.1	-90.00	-3,821.7	-129.2	1,055.9	954.6	101.38	10.415		
12,500.0	7,535.0	7,531.0	7,531.0	88.4	13.1	-90.00	-3,821.7	-129.2	1,063.0	961.5	101.51	10.472		
12,600.0	7,535.0	7,531.0	7,531.0	90.1	13.1	-90.00	-3,821.7	-129.2	1,162.5	1,059.2	103.24	11.260		
12,700.0	7,535.0	7,531.0	7,531.0	91.9	13.1	-90.00	-3,821.7	-129.2	1,262.1	1,157.1	104.98	12.022		
12,800.0	7,535.0	7,531.0	7,531.0	93.6	13.1	-90.00	-3,821.7	-129.2	1,361.7	1,255.0	106.72	12.760		
12,900.0	7,535.0	7,531.0	7,531.0	95.3	13.1	-90.00	-3,821.7	-129.2	1,461.4	1,352.9	108.45	13.475		
13,000.0	7,535.0	7,531.0	7,531.0	97.1	13.1	-90.00	-3,821.7	-129.2	1,561.1	1,450.9	110.19	14.167		
13,100.0	7,535.0	7,531.0	7,531.0	98.8	13.1	-90.00	-3,821.7	-129.2	1,660.9	1,548.9	111.93	14.838		
13,200.0	7,535.0	7,531.0	7,531.0	100.5	13.1	-90.00	-3,821.7	-129.2	1,760.7	1,647.0	113.67	15.489		
13,300.0	7,535.0	7,531.0	7,531.0	102.3	13.1	-90.00	-3,821.7	-129.2	1,860.5	1,745.1	115.41	16.120		
13,400.0	7,535.0	7,531.0	7,531.0	104.0	13.1	-90.00	-3,821.7	-129.2	1,960.3	1,843.1	117.15	16.733		
13,500.0	7,535.0	7,531.0	7,531.0	105.8	13.1	-90.00	-3,821.7	-129.2	2,060.1	1,941.2	118.89	17.328		
13,600.0	7,535.0	7,531.0	7,531.0	107.5	13.1	-90.00	-3,821.7	-129.2	2,160.0	2,039.4	120.64	17.905		
13,700.0	7,535.0	7,531.0	7,531.0	109.3	13.1	-90.00	-3,821.7	-129.2	2,259.9	2,137.5	122.38	18.466		
13,800.0	7,535.0	7,531.0	7,531.0	111.0	13.1	-90.00	-3,821.7	-129.2	2,359.8	2,235.6	124.12	19.012		
13,900.0	7,535.0	7,531.0	7,531.0	112.7	13.1	-90.00	-3,821.7	-129.2	2,459.6	2,333.8	125.86	19.542		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R66W (Rodman Bruntz) - OLIVE 1 (EXISTING) - Existing - Existing													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
14,000.0	7,535.0	7,531.0	7,531.0	114.5	13.1	-90.00	-3,821.7	-129.2	2,559.5	2,431.9	127.61	20.058		
14,100.0	7,535.0	7,531.0	7,531.0	116.2	13.1	-90.00	-3,821.7	-129.2	2,659.5	2,530.1	129.35	20.560		
14,200.0	7,535.0	7,531.0	7,531.0	118.0	13.1	-90.00	-3,821.7	-129.2	2,759.4	2,628.3	131.09	21.049		
14,300.0	7,535.0	7,531.0	7,531.0	119.7	13.1	-90.00	-3,821.7	-129.2	2,859.3	2,726.5	132.84	21.525		
14,400.0	7,535.0	7,531.0	7,531.0	121.5	13.1	-90.00	-3,821.7	-129.2	2,959.2	2,824.6	134.58	21.988		
14,500.0	7,535.0	7,531.0	7,531.0	123.2	13.1	-90.00	-3,821.7	-129.2	3,059.2	2,922.8	136.33	22.440		
14,600.0	7,535.0	7,531.0	7,531.0	124.9	13.1	-90.00	-3,821.7	-129.2	3,159.1	3,021.0	138.07	22.880		
14,672.4	7,535.0	7,531.0	7,531.0	126.2	13.1	-90.00	-3,821.7	-129.2	3,231.4	3,092.1	139.34	23.192		
14,672.9	7,535.0	7,531.0	7,531.0	126.2	13.1	-90.00	-3,821.7	-129.2	3,231.9	3,092.6	139.34	23.194		





# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Existing													Offset Site Error: 0.0 ft			
Survey Program: 1163-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	10.8	10.8	0.0	0.0	163.30	-2,834.1	850.3	2,958.9							
100.0	100.0	109.4	109.4	0.2	0.2	163.30	-2,834.1	850.3	2,958.9	2,958.6	0.34	8,628.034				
200.0	200.0	207.9	207.9	0.3	0.4	163.30	-2,834.2	850.2	2,959.0	2,958.3	0.69	4,291.792				
300.0	300.0	306.5	306.5	0.5	0.5	163.31	-2,834.4	850.1	2,959.1	2,958.1	1.04	2,856.390				
400.0	400.0	405.0	405.0	0.7	0.7	163.31	-2,834.7	849.9	2,959.3	2,957.9	1.38	2,140.579				
500.0	500.0	503.6	503.6	0.8	0.9	163.32	-2,835.0	849.6	2,959.5	2,957.8	1.73	1,711.712				
600.0	600.0	602.1	602.1	1.0	1.1	163.33	-2,835.3	849.3	2,959.8	2,957.7	2.08	1,426.071				
700.0	700.0	700.6	700.6	1.2	1.2	163.33	-2,835.8	848.9	2,960.1	2,957.7	2.42	1,222.183				
800.0	800.0	799.2	799.2	1.4	1.4	163.35	-2,836.3	848.5	2,960.5	2,957.7	2.77	1,069.351				
900.0	900.0	897.7	897.7	1.5	1.6	163.36	-2,836.9	848.0	2,960.9	2,957.8	3.12	950.537				
1,000.0	1,000.0	996.2	996.2	1.7	1.7	163.37	-2,837.5	847.5	2,961.4	2,958.0	3.46	855.524				
1,100.0	1,100.0	1,094.8	1,094.8	1.9	1.9	163.39	-2,838.2	846.9	2,961.9	2,958.1	3.81	777.816				
1,200.0	1,200.0	1,201.2	1,201.2	2.1	2.1	-144.36	-2,839.1	846.0	2,963.2	2,959.0	4.18	709.365				
1,300.0	1,300.0	1,358.7	1,358.5	2.2	2.4	-144.28	-2,840.2	839.7	2,964.9	2,960.3	4.64	638.607				
1,400.0	1,399.9	1,580.4	1,578.7	2.4	2.9	-143.92	-2,839.7	814.5	2,965.3	2,960.0	5.31	558.929				
1,500.0	1,499.7	1,697.9	1,694.3	2.6	3.2	-143.62	-2,838.3	793.2	2,964.0	2,958.2	5.81	510.054				
1,533.9	1,533.5	1,729.1	1,724.7	2.7	3.3	-143.52	-2,838.2	786.6	2,963.9	2,957.9	5.97	496.696				
1,600.0	1,599.4	1,798.2	1,791.9	2.8	3.6	-143.28	-2,838.5	770.3	2,964.2	2,957.8	6.33	468.037				
1,619.7	1,619.0	1,818.7	1,811.7	2.8	3.6	-143.20	-2,838.7	765.1	2,964.4	2,957.9	6.44	460.140				
1,700.0	1,699.0	1,894.4	1,884.6	3.0	4.0	-142.90	-2,839.6	744.8	2,965.3	2,958.4	6.90	429.557				
1,800.0	1,798.5	2,040.5	2,024.0	3.2	4.7	-142.22	-2,841.8	701.0	2,966.1	2,958.3	7.78	381.150				
1,900.0	1,898.1	2,180.7	2,155.6	3.4	5.5	-141.45	-2,843.1	652.9	2,965.4	2,956.7	8.77	338.022				
2,000.0	1,997.7	2,281.8	2,249.3	3.6	6.1	-140.84	-2,844.1	614.7	2,964.2	2,954.6	9.60	308.826				
2,100.0	2,097.3	2,376.7	2,337.1	3.9	6.7	-140.26	-2,845.0	579.0	2,963.3	2,952.9	10.40	284.905				
2,200.0	2,196.9	2,462.1	2,416.4	4.1	7.3	-139.74	-2,845.8	547.2	2,962.8	2,951.7	11.15	265.756				
2,228.8	2,225.6	2,488.2	2,440.7	4.1	7.5	-139.59	-2,846.0	537.6	2,962.8	2,951.4	11.37	260.504				
2,300.0	2,296.5	2,561.5	2,509.0	4.3	7.9	-139.16	-2,846.6	511.1	2,962.8	2,950.8	11.98	247.336				
2,400.0	2,396.1	2,642.8	2,585.0	4.5	8.5	-138.70	-2,847.3	482.2	2,963.2	2,950.5	12.70	233.257				
2,500.0	2,495.7	2,735.5	2,671.6	4.7	9.1	-138.17	-2,848.5	449.0	2,964.3	2,950.8	13.51	219.447				
2,600.0	2,595.3	2,829.8	2,759.8	5.0	9.7	-137.64	-2,849.5	415.7	2,965.6	2,951.3	14.31	207.210				
2,700.0	2,694.8	2,918.2	2,842.9	5.2	10.2	-137.16	-2,850.5	385.5	2,967.4	2,952.3	15.07	196.887				
2,800.0	2,794.4	3,087.3	3,001.6	5.4	11.3	-136.24	-2,850.3	327.1	2,968.1	2,951.7	16.39	181.142				
2,813.1	2,807.5	3,099.0	3,012.4	5.4	11.4	-136.17	-2,850.2	322.9	2,968.1	2,951.6	16.49	179.961				
2,900.0	2,894.0	3,173.2	3,081.3	5.6	11.9	-135.73	-2,849.8	295.3	2,968.3	2,951.1	17.21	172.478				
3,000.0	2,993.6	3,251.9	3,153.6	5.9	12.5	-135.22	-2,849.9	264.1	2,969.3	2,951.3	18.00	164.986				
3,100.0	3,093.2	3,320.0	3,216.5	6.1	13.0	-134.80	-2,850.3	238.1	2,971.2	2,952.5	18.68	159.080				
3,200.0	3,192.8	3,398.3	3,289.4	6.3	13.5	-134.35	-2,851.1	209.6	2,974.1	2,954.7	19.42	153.143				
3,300.0	3,292.4	3,483.6	3,369.0	6.5	14.1	-133.86	-2,852.6	179.0	2,978.0	2,957.7	20.21	147.365				
3,400.0	3,392.0	3,589.7	3,468.2	6.8	14.8	-133.26	-2,854.3	141.4	2,982.1	2,961.0	21.14	141.083				
3,500.0	3,491.6	3,700.3	3,571.5	7.0	15.6	-132.64	-2,855.6	101.8	2,986.0	2,963.9	22.11	135.054				
3,600.0	3,591.1	3,805.1	3,669.6	7.2	16.2	-132.05	-2,856.3	64.8	2,989.8	2,966.8	23.01	129.910				
3,700.0	3,690.7	3,899.5	3,758.4	7.5	16.8	-131.56	-2,856.7	32.8	2,993.8	2,970.0	23.83	125.625				
3,800.0	3,790.3	3,981.0	3,835.1	7.7	17.4	-131.13	-2,857.1	5.3	2,998.1	2,973.5	24.58	121.987				
3,900.0	3,889.9	4,056.9	3,906.3	7.9	17.9	-130.72	-2,857.9	-21.2	3,003.1	2,977.8	25.31	118.662				
4,000.0	3,989.5	4,123.1	3,968.1	8.2	18.3	-130.36	-2,859.4	-44.4	3,009.5	2,983.5	25.95	115.952				
4,100.0	4,089.1	4,202.4	4,042.8	8.4	18.8	-129.95	-2,861.8	-71.3	3,017.0	2,990.3	26.68	113.094				
4,200.0	4,188.7	4,334.4	4,167.2	8.6	19.6	-129.28	-2,865.5	-115.2	3,024.5	2,996.7	27.74	109.038				
4,300.0	4,288.3	4,445.7	4,272.0	8.9	20.4	-128.71	-2,867.3	-152.7	3,031.1	3,002.4	28.67	105.711				
4,400.0	4,387.9	4,537.3	4,358.3	9.1	20.9	-128.24	-2,868.7	-183.3	3,037.8	3,008.3	29.47	103.091				
4,500.0	4,487.4	4,640.1	4,455.6	9.3	21.5	-127.75	-2,870.4	-216.4	3,044.9	3,014.6	30.29	100.530				
4,600.0	4,587.0	4,736.0	4,547.3	9.6	22.1	-127.35	-2,871.7	-244.3	3,051.9	3,020.9	31.03	98.365				
4,700.0	4,686.6	4,851.6	4,658.5	9.8	22.7	-126.91	-2,873.1	-275.7	3,058.8	3,027.0	31.83	96.088				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 1163-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		
				(ft)	(ft)	(°)								
4,800.0	4,786.2	4,935.2	4,739.0	10.0	23.1	-126.60	-2,874.0	-298.2	3,065.9	3,033.4	32.48	94.390		
4,900.0	4,885.8	5,048.2	4,848.3	10.3	23.6	-126.21	-2,875.5	-327.2	3,073.2	3,040.0	33.24	92.453		
5,000.0	4,985.4	5,170.1	4,966.5	10.5	24.2	-125.82	-2,876.3	-356.7	3,079.9	3,045.9	34.02	90.543		
5,100.0	5,085.0	5,301.0	5,094.0	10.7	24.8	-125.44	-2,875.5	-386.8	3,085.3	3,050.4	34.81	88.642		
5,200.0	5,184.6	5,402.5	5,193.2	11.0	25.2	-125.18	-2,874.5	-408.2	3,090.4	3,054.9	35.43	87.225		
5,300.0	5,284.2	5,498.4	5,287.3	11.2	25.5	-124.97	-2,873.8	-426.6	3,095.8	3,059.8	36.00	85.993		
5,400.0	5,383.7	5,585.3	5,372.8	11.4	25.8	-124.80	-2,873.6	-442.1	3,101.6	3,065.0	36.52	84.930		
5,500.0	5,483.3	5,691.4	5,477.3	11.7	26.2	-124.62	-2,873.4	-459.9	3,107.4	3,070.3	37.07	83.827		
5,600.0	5,582.9	5,786.5	5,571.6	11.9	26.4	-124.51	-2,873.2	-472.9	3,113.1	3,075.5	37.54	82.929		
5,700.0	5,682.5	5,878.8	5,663.2	12.1	26.7	-124.43	-2,873.4	-483.8	3,119.2	3,081.2	37.99	82.111		
5,800.0	5,782.1	6,021.8	5,805.5	12.4	26.9	-124.36	-2,873.0	-498.2	3,124.5	3,086.0	38.50	81.165		
5,900.0	5,881.7	6,132.6	5,916.1	12.6	27.1	-124.39	-2,871.9	-505.2	3,129.1	3,090.2	38.89	80.469		
6,000.0	5,981.3	6,233.1	6,016.4	12.8	27.3	-124.43	-2,870.8	-510.2	3,133.3	3,094.1	39.24	79.848		
6,100.0	6,080.9	6,308.7	6,092.0	13.1	27.3	-124.49	-2,870.3	-512.7	3,138.1	3,098.6	39.54	79.371		
6,200.0	6,180.5	6,397.0	6,180.3	13.3	27.4	-124.59	-2,870.4	-513.7	3,143.4	3,103.6	39.82	78.948		
6,300.0	6,280.0	6,492.0	6,275.3	13.5	27.5	-124.72	-2,870.9	-513.5	3,149.1	3,109.0	40.09	78.547		
6,400.0	6,379.6	6,589.5	6,372.7	13.8	27.5	-124.87	-2,871.5	-512.8	3,154.8	3,114.5	40.36	78.159		
6,500.0	6,479.2	6,679.0	6,462.3	14.0	27.6	-125.01	-2,872.2	-511.8	3,160.8	3,120.2	40.63	77.802		
6,600.0	6,578.8	6,773.0	6,556.3	14.2	27.6	-125.15	-2,873.2	-511.2	3,167.0	3,126.1	40.91	77.411		
6,700.0	6,678.4	6,868.0	6,651.3	14.5	27.7	-125.28	-2,874.4	-510.8	3,173.4	3,132.2	41.18	77.054		
6,800.0	6,778.0	6,976.4	6,759.7	14.7	27.8	-125.44	-2,875.5	-510.2	3,179.8	3,138.3	41.47	76.667		
6,900.0	6,877.6	7,083.1	6,866.3	14.9	27.9	-125.58	-2,876.4	-510.3	3,185.9	3,144.1	41.78	76.262		
6,953.0	6,930.4	7,143.4	6,926.6	15.1	27.9	-125.66	-2,876.8	-510.5	3,189.0	3,147.1	41.94	76.042		
7,000.0	6,977.2	7,189.8	6,973.0	15.1	27.9	-67.17	-2,877.0	-510.6	3,189.8	3,147.7	42.08	75.800		
7,050.0	7,027.0	7,239.0	7,022.2	15.2	28.0	-28.41	-2,877.2	-510.7	3,186.4	3,144.5	41.96	75.931		
7,100.0	7,076.2	7,286.0	7,069.2	15.2	28.0	-15.74	-2,877.5	-510.9	3,178.8	3,137.2	41.58	76.456		
7,150.0	7,124.6	7,332.5	7,115.8	15.3	28.1	-10.10	-2,877.7	-511.3	3,166.9	3,125.9	40.92	77.398		
7,200.0	7,171.8	7,397.0	7,180.2	15.2	28.1	-6.96	-2,878.0	-511.9	3,150.7	3,110.7	40.01	78.749		
7,250.0	7,217.4	7,448.3	7,231.5	15.2	28.2	-4.92	-2,877.9	-512.3	3,130.2	3,091.4	38.84	80.598		
7,300.0	7,261.1	7,487.8	7,271.1	15.2	28.2	-3.45	-2,877.9	-512.6	3,105.9	3,068.5	37.42	83.002		
7,350.0	7,302.5	7,526.4	7,309.6	15.2	28.3	-2.29	-2,877.9	-512.9	3,078.0	3,042.2	35.79	86.013		
7,400.0	7,341.3	7,569.6	7,352.8	15.1	28.3	-1.29	-2,877.9	-513.3	3,046.5	3,012.6	33.96	89.701		
7,450.0	7,377.2	7,609.5	7,392.7	15.1	28.3	-0.35	-2,877.9	-513.7	3,011.8	2,979.8	31.97	94.193		
7,500.0	7,410.0	7,639.6	7,422.9	15.1	28.4	0.62	-2,877.8	-514.0	2,974.0	2,944.1	29.85	99.636		
7,550.0	7,439.4	7,665.9	7,449.1	15.2	28.4	1.69	-2,877.8	-514.3	2,933.6	2,905.9	27.64	106.136		
7,600.0	7,465.2	7,689.0	7,472.3	15.2	28.4	2.98	-2,877.8	-514.5	2,890.8	2,865.3	25.41	113.755		
7,650.0	7,487.1	7,709.0	7,492.2	15.3	28.4	4.70	-2,877.9	-514.6	2,845.9	2,822.7	23.26	122.360		
7,700.0	7,505.1	7,730.8	7,514.0	15.5	28.4	7.26	-2,877.9	-514.7	2,799.3	2,778.0	21.34	131.197		
7,750.0	7,518.9	7,747.6	7,530.8	15.7	28.5	11.59	-2,877.9	-514.8	2,751.3	2,731.4	19.95	137.910		
7,800.0	7,528.5	7,759.2	7,542.4	15.9	28.5	20.47	-2,877.9	-514.8	2,702.4	2,682.4	19.94	135.528		
7,850.0	7,533.9	7,765.5	7,548.7	16.2	28.5	45.56	-2,877.9	-514.9	2,652.7	2,628.6	24.18	109.727		
7,886.2	7,535.0	7,766.8	7,550.0	16.4	28.5	91.30	-2,877.9	-514.9	2,616.7	2,588.7	27.94	93.652		
7,900.0	7,535.0	7,766.8	7,550.0	16.5	28.5	91.29	-2,877.9	-514.9	2,602.9	2,574.8	28.04	92.814		
8,000.0	7,535.0	7,766.6	7,549.8	17.2	28.5	91.22	-2,877.9	-514.9	2,503.1	2,474.2	28.89	86.654		
8,100.0	7,535.0	7,766.3	7,549.6	18.1	28.5	91.15	-2,877.9	-514.9	2,403.4	2,373.5	29.87	80.451		
8,200.0	7,535.0	7,766.1	7,549.3	19.1	28.5	91.07	-2,877.9	-514.9	2,303.7	2,272.7	30.98	74.356		
8,300.0	7,535.0	7,765.9	7,549.1	20.2	28.5	91.00	-2,877.9	-514.9	2,204.0	2,171.8	32.19	68.471		
8,400.0	7,535.0	7,765.7	7,548.9	21.4	28.5	90.93	-2,877.9	-514.9	2,104.3	2,070.8	33.48	62.859		
8,500.0	7,535.0	7,765.5	7,548.7	22.7	28.5	90.87	-2,877.9	-514.9	2,004.7	1,969.9	34.83	57.553		
8,600.0	7,535.0	7,765.3	7,548.5	24.0	28.5	90.80	-2,877.9	-514.9	1,905.1	1,868.9	36.24	52.567		
8,700.0	7,535.0	7,765.1	7,548.3	25.4	28.5	90.73	-2,877.9	-514.9	1,805.6	1,767.9	37.70	47.897		
8,800.0	7,535.0	7,764.9	7,548.1	26.9	28.5	90.67	-2,877.9	-514.9	1,706.1	1,666.9	39.19	43.534		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Existing												Offset Site Error:	0.0 ft
Survey Program: 1163-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
8,900.0	7,535.0	7,764.7	7,547.9	28.3	28.5	90.60	-2,877.9	-514.9	1,606.6	1,565.9	40.71	39.462	
9,000.0	7,535.0	7,764.5	7,547.7	29.8	28.5	90.54	-2,877.9	-514.9	1,507.3	1,465.0	42.26	35.664	
9,100.0	7,535.0	7,764.3	7,547.5	31.3	28.5	90.48	-2,877.9	-514.8	1,408.0	1,364.2	43.84	32.120	
9,200.0	7,535.0	7,764.1	7,547.3	32.9	28.5	90.41	-2,877.9	-514.8	1,308.9	1,263.5	45.43	28.812	
9,300.0	7,535.0	7,763.9	7,547.1	34.4	28.5	90.35	-2,877.9	-514.8	1,209.9	1,162.9	47.04	25.722	
9,400.0	7,535.0	7,763.7	7,546.9	36.0	28.5	90.29	-2,877.9	-514.8	1,111.1	1,062.4	48.66	22.834	
9,500.0	7,535.0	7,763.5	7,546.7	37.6	28.5	90.23	-2,877.9	-514.8	1,012.5	962.2	50.29	20.131	
9,600.0	7,535.0	7,763.3	7,546.5	39.2	28.5	90.18	-2,877.9	-514.8	914.2	862.3	51.94	17.601	
9,700.0	7,535.0	7,763.2	7,546.4	40.9	28.5	90.12	-2,877.9	-514.8	816.4	762.8	53.59	15.232	
9,800.0	7,535.0	7,763.0	7,546.2	42.5	28.5	90.06	-2,877.9	-514.8	719.1	663.8	55.26	13.013	
9,900.0	7,535.0	7,762.8	7,546.0	44.1	28.5	90.01	-2,877.9	-514.8	622.7	565.7	56.93	10.938	
10,000.0	7,535.0	7,762.6	7,545.8	45.8	28.5	89.95	-2,877.9	-514.8	527.6	469.0	58.60	9.003	
10,100.0	7,535.0	7,762.5	7,545.7	47.4	28.5	89.90	-2,877.9	-514.8	434.7	374.4	60.29	7.211	
10,200.0	7,535.0	7,762.3	7,545.5	49.1	28.5	89.84	-2,877.9	-514.8	345.9	283.9	61.97	5.581	
10,300.0	7,535.0	7,762.1	7,545.3	50.8	28.5	89.79	-2,877.9	-514.8	265.1	201.4	63.67	4.164	
10,400.0	7,535.0	7,762.0	7,545.2	52.5	28.5	89.74	-2,877.9	-514.8	202.3	136.9	65.36	3.095	
10,496.8	7,535.0	7,761.8	7,545.0	54.1	28.5	89.69	-2,877.9	-514.8	177.6	110.6	67.01	2.650 CC	
10,500.0	7,535.0	7,761.8	7,545.0	54.1	28.5	89.68	-2,877.9	-514.8	177.6	110.6	67.06	2.649 ES, SF	
10,600.0	7,535.0	7,761.7	7,544.9	55.8	28.5	89.63	-2,877.9	-514.8	205.4	136.6	68.77	2.987	
10,700.0	7,535.0	7,761.5	7,544.7	57.5	28.5	89.58	-2,877.9	-514.8	269.9	199.4	70.47	3.829	
10,800.0	7,535.0	7,761.3	7,544.6	59.2	28.5	89.53	-2,877.9	-514.8	351.4	279.2	72.18	4.868	
10,900.0	7,535.0	7,761.2	7,544.4	60.9	28.5	89.48	-2,877.9	-514.8	440.6	366.7	73.89	5.962	
11,000.0	7,535.0	7,761.0	7,544.3	62.6	28.5	89.44	-2,877.9	-514.8	533.6	458.0	75.61	7.058	
11,100.0	7,535.0	7,760.9	7,544.1	64.3	28.5	89.39	-2,877.9	-514.8	628.8	551.5	77.33	8.132	
11,200.0	7,535.0	7,760.7	7,544.0	66.0	28.5	89.34	-2,877.9	-514.8	725.3	646.2	79.04	9.176	
11,300.0	7,535.0	7,760.6	7,543.8	67.7	28.5	89.29	-2,877.9	-514.8	822.6	741.8	80.76	10.185	
11,400.0	7,535.0	7,760.5	7,543.7	69.4	28.5	89.25	-2,877.9	-514.8	920.5	838.0	82.49	11.159	
11,496.2	7,535.0	7,760.3	7,543.5	71.1	28.5	89.20	-2,877.9	-514.8	1,015.0	930.9	84.14	12.063	
11,500.0	7,535.0	7,760.3	7,543.5	71.2	28.5	89.20	-2,877.9	-514.8	1,018.8	934.6	84.21	12.098	
11,600.0	7,535.0	7,760.2	7,543.4	72.9	28.5	89.16	-2,877.9	-514.8	1,117.4	1,031.5	85.94	13.003	
11,700.0	7,535.0	7,760.0	7,543.3	74.6	28.5	89.11	-2,877.9	-514.8	1,216.2	1,128.6	87.66	13.874	
11,800.0	7,535.0	7,759.9	7,543.1	76.3	28.5	89.07	-2,877.9	-514.8	1,315.2	1,225.9	89.39	14.714	
11,900.0	7,535.0	7,759.8	7,543.0	78.0	28.5	89.03	-2,877.9	-514.8	1,414.4	1,323.3	91.12	15.523	
12,000.0	7,535.0	7,759.6	7,542.8	79.7	28.5	88.98	-2,877.9	-514.8	1,513.7	1,420.8	92.85	16.303	
12,100.0	7,535.0	7,759.5	7,542.7	81.5	28.5	88.94	-2,877.9	-514.8	1,613.0	1,518.4	94.58	17.055	
12,200.0	7,535.0	7,759.4	7,542.6	83.2	28.5	88.90	-2,877.9	-514.8	1,712.4	1,616.1	96.31	17.780	
12,296.2	7,535.0	7,759.2	7,542.5	84.9	28.5	88.86	-2,877.9	-514.8	1,808.1	1,710.1	97.98	18.455	
12,300.0	7,535.0	7,759.2	7,542.5	84.9	28.5	88.87	-2,877.9	-514.8	1,811.9	1,713.9	98.05	18.479	
12,400.0	7,535.0	7,759.1	7,542.3	86.6	28.5	89.14	-2,877.9	-514.8	1,911.3	1,811.2	100.02	19.109	
12,492.9	7,535.0	7,759.0	7,542.2	88.3	28.5	89.30	-2,877.9	-514.8	2,003.3	1,901.4	101.81	19.676	
12,500.0	7,535.0	7,759.0	7,542.2	88.4	28.5	89.30	-2,877.9	-514.8	2,010.3	1,908.3	101.94	19.721	
12,600.0	7,535.0	7,758.9	7,542.1	90.1	28.5	89.28	-2,877.9	-514.8	2,109.1	2,005.5	103.67	20.344	
12,700.0	7,535.0	7,758.8	7,542.1	91.9	28.5	89.27	-2,877.9	-514.8	2,208.1	2,102.7	105.41	20.948	
12,800.0	7,535.0	7,758.8	7,542.0	93.6	28.5	89.25	-2,877.9	-514.8	2,307.2	2,200.0	107.15	21.533	
12,900.0	7,535.0	7,758.7	7,541.9	95.3	28.5	89.23	-2,877.9	-514.8	2,406.3	2,297.4	108.88	22.100	
13,000.0	7,535.0	7,758.6	7,541.8	97.1	28.5	89.22	-2,877.9	-514.8	2,505.5	2,394.9	110.62	22.650	
13,100.0	7,535.0	7,758.5	7,541.7	98.8	28.5	89.20	-2,877.9	-514.8	2,604.8	2,492.5	112.36	23.183	
13,200.0	7,535.0	7,758.4	7,541.6	100.5	28.5	89.18	-2,877.9	-514.8	2,704.1	2,590.0	114.10	23.700	
13,300.0	7,535.0	7,758.3	7,541.5	102.3	28.5	89.17	-2,877.9	-514.8	2,803.5	2,687.7	115.84	24.202	
13,400.0	7,535.0	7,758.2	7,541.5	104.0	28.5	89.15	-2,877.9	-514.8	2,902.9	2,785.4	117.58	24.689	
13,500.0	7,535.0	7,758.2	7,541.4	105.8	28.5	89.14	-2,877.9	-514.8	3,002.4	2,883.1	119.32	25.162	
13,600.0	7,535.0	7,758.1	7,541.3	107.5	28.5	89.12	-2,877.9	-514.8	3,101.9	2,980.8	121.06	25.622	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 1163-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		
13,700.0	7,535.0	7,758.0	7,541.2	109.3	28.5	89.11	-2,877.9	-514.8	3,201.4	3,078.6	122.80	26.069		
13,800.0	7,535.0	7,757.9	7,541.1	111.0	28.5	89.09	-2,877.9	-514.8	3,301.0	3,176.4	124.55	26.504		
13,900.0	7,535.0	7,757.8	7,541.1	112.7	28.5	89.08	-2,877.9	-514.8	3,400.5	3,274.2	126.29	26.927		
14,000.0	7,535.0	7,757.8	7,541.0	114.5	28.5	89.06	-2,877.9	-514.8	3,500.1	3,372.1	128.03	27.338		
14,100.0	7,535.0	7,757.7	7,540.9	116.2	28.5	89.05	-2,877.9	-514.8	3,599.8	3,470.0	129.78	27.738		
14,200.0	7,535.0	7,757.6	7,540.8	118.0	28.5	89.03	-2,877.9	-514.8	3,699.4	3,567.9	131.52	28.128		
14,300.0	7,535.0	7,757.5	7,540.7	119.7	28.5	89.02	-2,877.9	-514.8	3,799.1	3,665.8	133.26	28.508		
14,400.0	7,535.0	7,757.5	7,540.7	121.5	28.5	89.01	-2,877.9	-514.8	3,898.7	3,763.7	135.01	28.878		
14,500.0	7,535.0	7,757.4	7,540.6	123.2	28.5	88.99	-2,877.9	-514.8	3,998.4	3,861.7	136.75	29.239		
14,600.0	7,535.0	7,757.3	7,540.5	124.9	28.5	88.98	-2,877.9	-514.8	4,098.2	3,959.7	138.50	29.591		
14,672.4	7,535.0	7,757.3	7,540.5	126.2	28.5	88.97	-2,877.9	-514.8	4,170.3	4,030.6	139.76	29.840		
14,672.9	7,535.0	7,757.3	7,540.5	126.2	28.5	88.97	-2,877.9	-514.8	4,170.8	4,031.1	139.77	29.841		



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Plan #1													Offset Site Error: 0.0 ft			
Survey Program: 0-MWD															Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning			
0.0	0.0	27.0	27.0	0.0	0.0	163.30	-2,834.1	850.3	2,958.9							
100.0	100.0	127.0	127.0	0.2	0.2	163.30	-2,834.1	850.3	2,958.9	2,958.6	0.35	8,561.789				
200.0	200.0	227.0	227.0	0.3	0.4	163.30	-2,834.1	850.3	2,958.9	2,958.2	0.69	4,259.495				
300.0	300.0	327.0	327.0	0.5	0.5	163.30	-2,834.1	850.3	2,958.9	2,957.9	1.04	2,834.939				
400.0	400.0	427.0	427.0	0.7	0.7	163.30	-2,834.1	850.3	2,958.9	2,957.5	1.39	2,124.437				
500.0	500.0	527.0	527.0	0.8	0.9	163.30	-2,834.1	850.3	2,958.9	2,957.2	1.74	1,698.703				
600.0	600.0	627.0	627.0	1.0	1.1	163.30	-2,834.1	850.3	2,958.9	2,956.8	2.09	1,415.116				
700.0	700.0	727.0	727.0	1.2	1.2	163.30	-2,834.1	850.3	2,958.9	2,956.5	2.44	1,212.668				
800.0	800.0	827.0	827.0	1.4	1.4	163.30	-2,834.1	850.3	2,958.9	2,956.1	2.79	1,060.896				
900.0	900.0	927.0	927.0	1.5	1.6	163.30	-2,834.1	850.3	2,958.9	2,955.8	3.14	942.888				
1,000.0	1,000.0	1,027.0	1,027.0	1.7	1.8	163.30	-2,834.1	850.3	2,958.9	2,955.4	3.49	848.506				
1,100.0	1,100.0	1,155.9	1,155.8	1.9	2.0	163.34	-2,834.1	848.4	2,958.5	2,954.6	3.89	761.007				
1,200.0	1,200.0	1,292.9	1,292.7	2.1	2.2	-144.29	-2,834.3	840.0	2,957.6	2,953.3	4.31	685.688				
1,300.0	1,300.0	1,429.2	1,428.1	2.2	2.5	-144.06	-2,834.7	825.3	2,956.9	2,952.2	4.77	619.670				
1,400.0	1,399.9	1,564.3	1,561.5	2.4	2.9	-143.74	-2,835.2	804.3	2,956.5	2,951.2	5.28	559.612				
1,500.0	1,499.7	1,697.8	1,692.3	2.6	3.3	-143.32	-2,835.8	777.4	2,956.3	2,950.4	5.86	504.080				
1,504.0	1,503.7	1,703.1	1,697.5	2.6	3.3	-143.31	-2,835.9	776.2	2,956.3	2,950.4	5.89	501.876				
1,600.0	1,599.4	1,819.8	1,810.6	2.8	3.8	-142.87	-2,836.5	747.7	2,956.5	2,950.0	6.50	455.051				
1,619.7	1,619.0	1,839.2	1,829.3	2.8	3.8	-142.80	-2,836.7	742.7	2,956.7	2,950.1	6.61	447.398				
1,700.0	1,699.0	1,917.9	1,905.4	3.0	4.2	-142.50	-2,837.2	722.6	2,957.5	2,950.5	7.07	418.304				
1,800.0	1,798.5	2,016.0	2,000.2	3.2	4.6	-142.13	-2,837.8	697.5	2,958.7	2,951.1	7.66	386.075				
1,900.0	1,898.1	2,114.0	2,095.0	3.4	5.0	-141.76	-2,838.4	672.4	2,960.0	2,951.8	8.27	357.837				
2,000.0	1,997.7	2,212.1	2,189.9	3.6	5.4	-141.39	-2,839.0	647.3	2,961.5	2,952.6	8.89	333.030				
2,100.0	2,097.3	2,310.2	2,284.7	3.9	5.9	-141.02	-2,839.6	622.3	2,963.1	2,953.5	9.52	311.149				
2,200.0	2,196.9	2,408.2	2,379.5	4.1	6.3	-140.65	-2,840.2	597.2	2,964.8	2,954.6	10.16	291.762				
2,300.0	2,296.5	2,506.3	2,474.3	4.3	6.8	-140.28	-2,840.8	572.1	2,966.6	2,955.8	10.81	274.503				
2,400.0	2,396.1	2,604.4	2,569.1	4.5	7.2	-139.91	-2,841.4	547.0	2,968.5	2,957.1	11.46	259.067				
2,500.0	2,495.7	2,702.5	2,663.9	4.7	7.7	-139.54	-2,842.0	521.9	2,970.6	2,958.5	12.12	245.197				
2,600.0	2,595.3	2,800.5	2,758.7	5.0	8.2	-139.18	-2,842.6	496.8	2,972.8	2,960.1	12.78	232.681				
2,700.0	2,694.8	2,898.6	2,853.5	5.2	8.6	-138.81	-2,843.2	471.8	2,975.2	2,961.7	13.44	221.340				
2,800.0	2,794.4	2,996.7	2,948.3	5.4	9.1	-138.44	-2,843.8	446.7	2,977.6	2,963.5	14.11	211.023				
2,900.0	2,894.0	3,094.7	3,043.1	5.6	9.6	-138.08	-2,844.4	421.6	2,980.2	2,965.4	14.78	201.604				
3,000.0	2,993.6	3,192.8	3,137.9	5.9	10.0	-137.71	-2,845.0	396.5	2,982.9	2,967.5	15.46	192.975				
3,100.0	3,093.2	3,290.9	3,232.7	6.1	10.5	-137.35	-2,845.6	371.4	2,985.8	2,969.6	16.14	185.046				
3,200.0	3,192.8	3,389.0	3,327.5	6.3	11.0	-136.99	-2,846.2	346.3	2,988.7	2,971.9	16.82	177.738				
3,300.0	3,292.4	3,487.0	3,422.4	6.5	11.5	-136.62	-2,846.8	321.2	2,991.8	2,974.3	17.50	170.983				
3,400.0	3,392.0	3,585.1	3,517.2	6.8	11.9	-136.26	-2,847.4	296.2	2,995.0	2,976.9	18.18	164.723				
3,500.0	3,491.6	3,683.2	3,612.0	7.0	12.4	-135.90	-2,848.0	271.1	2,998.4	2,979.5	18.87	158.907				
3,600.0	3,591.1	3,781.3	3,706.8	7.2	12.9	-135.54	-2,848.6	246.0	3,001.8	2,982.3	19.56	153.492				
3,700.0	3,690.7	3,879.3	3,801.6	7.5	13.4	-135.18	-2,849.2	220.9	3,005.4	2,985.2	20.25	148.440				
3,800.0	3,790.3	3,977.4	3,896.4	7.7	13.8	-134.82	-2,849.8	195.8	3,009.1	2,988.2	20.94	143.716				
3,900.0	3,889.9	4,075.5	3,991.2	7.9	14.3	-134.46	-2,850.4	170.7	3,013.0	2,991.3	21.63	139.290				
4,000.0	3,989.5	4,173.5	4,086.0	8.2	14.8	-134.10	-2,851.0	145.7	3,016.9	2,994.6	22.32	135.137				
4,100.0	4,089.1	4,271.6	4,180.8	8.4	15.3	-133.75	-2,851.6	120.6	3,021.0	2,998.0	23.02	131.233				
4,200.0	4,188.7	4,369.7	4,275.6	8.6	15.7	-133.39	-2,852.2	95.5	3,025.2	3,001.5	23.72	127.556				
4,300.0	4,288.3	4,467.8	4,370.4	8.9	16.2	-133.04	-2,852.8	70.4	3,029.5	3,005.1	24.41	124.090				
4,400.0	4,387.9	4,565.8	4,465.2	9.1	16.7	-132.68	-2,853.4	45.3	3,033.9	3,008.8	25.11	120.816				
4,500.0	4,487.4	4,663.9	4,560.0	9.3	17.2	-132.33	-2,854.0	20.2	3,038.5	3,012.7	25.81	117.720				
4,600.0	4,587.0	4,762.0	4,654.9	9.6	17.7	-131.98	-2,854.6	-4.8	3,043.2	3,016.6	26.51	114.788				
4,700.0	4,686.6	4,860.0	4,749.7	9.8	18.1	-131.63	-2,855.2	-29.9	3,047.9	3,020.7	27.21	112.009				
4,800.0	4,786.2	4,958.1	4,844.5	10.0	18.6	-131.28	-2,855.8	-55.0	3,052.9	3,024.9	27.91	109.371				
4,900.0	4,885.8	5,056.2	4,939.3	10.3	19.1	-130.93	-2,856.4	-80.1	3,057.9	3,029.3	28.61	106.864				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
5,000.0	4,985.4	5,154.3	5,034.1	10.5	19.6	-130.59	-2,857.0	-105.2	3,063.0	3,033.7	29.32	104.480		
5,100.0	5,085.0	5,252.3	5,128.9	10.7	20.1	-130.24	-2,857.6	-130.3	3,068.3	3,038.3	30.02	102.210		
5,200.0	5,184.6	5,350.4	5,223.7	11.0	20.5	-129.89	-2,858.3	-155.4	3,073.6	3,042.9	30.72	100.046		
5,300.0	5,284.2	5,448.5	5,318.5	11.2	21.0	-129.55	-2,858.9	-180.4	3,079.1	3,047.7	31.43	97.981		
5,400.0	5,383.7	5,546.5	5,413.3	11.4	21.5	-129.21	-2,859.5	-205.5	3,084.7	3,052.6	32.13	96.010		
5,500.0	5,483.3	5,644.6	5,508.1	11.7	22.0	-128.87	-2,860.1	-230.6	3,090.4	3,057.6	32.83	94.127		
5,600.0	5,582.9	5,742.7	5,602.9	11.9	22.5	-128.53	-2,860.7	-255.7	3,096.3	3,062.7	33.54	92.325		
5,700.0	5,682.5	5,840.8	5,697.7	12.1	22.9	-128.19	-2,861.3	-280.8	3,102.2	3,068.0	34.24	90.601		
5,800.0	5,782.1	5,938.8	5,792.5	12.4	23.4	-127.85	-2,861.9	-305.9	3,108.3	3,073.3	34.94	88.949		
5,900.0	5,881.7	6,036.9	5,887.4	12.6	23.9	-127.51	-2,862.5	-330.9	3,114.4	3,078.8	35.65	87.366		
6,000.0	5,981.3	6,135.0	5,982.2	12.8	24.4	-127.18	-2,863.1	-356.0	3,120.7	3,084.3	36.35	85.848		
6,100.0	6,080.9	6,233.0	6,077.0	13.1	24.9	-126.85	-2,863.7	-381.1	3,127.1	3,090.0	37.06	84.390		
6,200.0	6,180.5	6,331.1	6,171.8	13.3	25.4	-126.51	-2,864.3	-406.2	3,133.6	3,095.8	37.76	82.990		
6,300.0	6,280.0	6,431.3	6,268.7	13.5	25.8	-126.18	-2,864.9	-431.6	3,140.1	3,101.7	38.45	81.664		
6,400.0	6,379.6	6,535.9	6,370.6	13.8	26.3	-125.89	-2,865.5	-455.1	3,146.7	3,107.6	39.10	80.475		
6,500.0	6,479.2	6,641.7	6,474.5	14.0	26.6	-125.66	-2,865.9	-475.2	3,153.1	3,113.4	39.69	79.442		
6,600.0	6,578.8	6,748.2	6,579.8	14.2	26.9	-125.51	-2,866.3	-491.5	3,159.3	3,119.1	40.22	78.556		
6,700.0	6,678.4	6,855.3	6,686.1	14.5	27.2	-125.43	-2,866.6	-503.9	3,165.3	3,124.6	40.68	77.807		
6,800.0	6,778.0	6,962.6	6,793.0	14.7	27.4	-125.42	-2,866.8	-512.3	3,171.0	3,129.9	41.08	77.189		
6,900.0	6,877.6	7,069.8	6,900.1	14.9	27.5	-125.48	-2,866.9	-516.7	3,176.6	3,135.1	41.42	76.692		
6,953.0	6,930.4	7,126.5	6,956.8	15.1	27.5	-125.54	-2,867.0	-517.5	3,179.4	3,137.8	41.58	76.460		
7,000.0	6,977.2	7,173.9	7,004.2	15.1	27.6	-67.05	-2,867.0	-517.5	3,180.0	3,138.2	41.72	76.213		
7,050.0	7,027.0	7,223.6	7,054.0	15.2	27.6	-28.30	-2,867.0	-517.5	3,176.3	3,134.7	41.61	76.341		
7,100.0	7,076.2	7,272.9	7,103.2	15.2	27.7	-15.63	-2,867.0	-517.5	3,168.4	3,127.2	41.22	76.872		
7,150.0	7,124.6	7,321.3	7,151.6	15.3	27.7	-10.00	-2,867.0	-517.5	3,156.2	3,115.7	40.56	77.821		
7,200.0	7,171.8	7,368.5	7,198.8	15.2	27.7	-6.85	-2,867.0	-517.5	3,139.9	3,100.2	39.64	79.215		
7,250.0	7,217.4	7,414.1	7,244.4	15.2	27.8	-4.81	-2,867.0	-517.5	3,119.5	3,081.0	38.47	81.093		
7,300.0	7,261.1	7,457.7	7,288.1	15.2	27.8	-3.34	-2,867.0	-517.5	3,095.2	3,058.1	37.06	83.508		
7,350.0	7,302.5	7,499.1	7,329.5	15.2	27.8	-2.18	-2,867.0	-517.5	3,067.2	3,031.7	35.45	86.532		
7,400.0	7,341.3	7,537.9	7,368.3	15.1	27.9	-1.18	-2,867.0	-517.5	3,035.7	3,002.1	33.63	90.255		
7,450.0	7,377.2	7,573.9	7,404.2	15.1	27.9	-0.23	-2,867.0	-517.5	3,000.9	2,969.3	31.66	94.784		
7,500.0	7,410.0	7,606.7	7,437.0	15.1	27.9	0.73	-2,867.0	-517.5	2,963.2	2,933.7	29.56	100.241		
7,550.0	7,439.4	7,636.1	7,466.4	15.2	27.9	1.81	-2,867.0	-517.5	2,922.8	2,895.4	27.38	106.742		
7,600.0	7,465.2	7,661.8	7,492.2	15.2	28.0	3.13	-2,867.0	-517.5	2,880.0	2,854.8	25.19	114.345		
7,650.0	7,487.1	7,683.8	7,514.1	15.3	28.0	4.88	-2,867.0	-517.5	2,835.1	2,812.0	23.07	122.896		
7,700.0	7,505.1	7,701.8	7,532.1	15.5	28.0	7.48	-2,867.0	-517.5	2,788.5	2,767.3	21.18	131.641		
7,750.0	7,518.9	7,715.6	7,545.9	15.7	28.0	11.83	-2,867.0	-517.5	2,740.5	2,720.7	19.84	138.142		
7,800.0	7,528.5	7,725.2	7,555.5	15.9	28.0	20.71	-2,867.0	-517.5	2,691.5	2,671.6	19.87	135.440		
7,850.0	7,533.9	7,730.5	7,560.9	16.2	28.0	45.40	-2,867.0	-517.5	2,641.9	2,617.8	24.06	109.790		
7,886.2	7,535.0	7,731.7	7,562.0	16.4	28.0	90.00	-2,867.0	-517.5	2,605.8	2,577.9	27.90	93.383		
7,900.0	7,535.0	7,731.7	7,562.0	16.5	28.0	90.00	-2,867.0	-517.5	2,592.0	2,564.0	28.01	92.547		
8,000.0	7,535.0	7,731.7	7,562.0	17.2	28.0	90.00	-2,867.0	-517.5	2,492.3	2,463.4	28.85	86.397		
8,100.0	7,535.0	7,731.7	7,562.0	18.1	28.0	90.00	-2,867.0	-517.5	2,392.6	2,362.7	29.83	80.203		
8,200.0	7,535.0	7,731.7	7,562.0	19.1	28.0	90.00	-2,867.0	-517.5	2,292.9	2,261.9	30.94	74.116		
8,300.0	7,535.0	7,731.7	7,562.0	20.2	28.0	90.00	-2,867.0	-517.5	2,193.2	2,161.0	32.14	68.237		
8,400.0	7,535.0	7,731.7	7,562.0	21.4	28.0	90.00	-2,867.0	-517.5	2,093.5	2,060.1	33.43	62.631		
8,500.0	7,535.0	7,731.7	7,562.0	22.7	28.0	90.00	-2,867.0	-517.5	1,993.9	1,959.1	34.78	57.332		
8,600.0	7,535.0	7,731.7	7,562.0	24.0	28.0	90.00	-2,867.0	-517.5	1,894.4	1,858.2	36.19	52.350		
8,700.0	7,535.0	7,731.7	7,562.0	25.4	28.0	90.00	-2,867.0	-517.5	1,794.8	1,757.2	37.64	47.685		
8,800.0	7,535.0	7,731.7	7,562.0	26.9	28.0	90.00	-2,867.0	-517.5	1,695.4	1,656.2	39.13	43.327		
8,900.0	7,535.0	7,731.7	7,562.0	28.3	28.0	90.00	-2,867.0	-517.5	1,596.0	1,555.3	40.65	39.260		
9,000.0	7,535.0	7,731.7	7,562.0	29.8	28.0	90.00	-2,867.0	-517.5	1,496.6	1,454.4	42.20	35.466		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Plan #1													Offset Site Error:	0.0 ft
Survey Program:		0-MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,100.0	7,535.0	7,731.7	7,562.0	31.3	28.0	90.00	-2,867.0	-517.5	1,397.4	1,353.7	43.77	31.926		
9,200.0	7,535.0	7,731.7	7,562.0	32.9	28.0	90.00	-2,867.0	-517.5	1,298.3	1,253.0	45.36	28.622		
9,300.0	7,535.0	7,731.7	7,562.0	34.4	28.0	90.00	-2,867.0	-517.5	1,199.4	1,152.4	46.97	25.536		
9,400.0	7,535.0	7,731.7	7,562.0	36.0	28.0	90.00	-2,867.0	-517.5	1,100.6	1,052.0	48.59	22.652		
9,500.0	7,535.0	7,731.7	7,562.0	37.6	28.0	90.00	-2,867.0	-517.5	1,002.1	951.9	50.22	19.953		
9,600.0	7,535.0	7,731.7	7,562.0	39.2	28.0	90.00	-2,867.0	-517.5	903.9	852.0	51.86	17.428		
9,700.0	7,535.0	7,731.7	7,562.0	40.9	28.0	90.00	-2,867.0	-517.5	806.1	752.6	53.52	15.063		
9,800.0	7,535.0	7,731.7	7,562.0	42.5	28.0	90.00	-2,867.0	-517.5	709.0	653.8	55.18	12.849		
9,900.0	7,535.0	7,731.7	7,562.0	44.1	28.0	90.00	-2,867.0	-517.5	612.8	555.9	56.85	10.779		
10,000.0	7,535.0	7,731.7	7,562.0	45.8	28.0	90.00	-2,867.0	-517.5	518.0	459.5	58.52	8.852		
10,100.0	7,535.0	7,731.7	7,562.0	47.4	28.0	90.00	-2,867.0	-517.5	425.7	365.5	60.20	7.070		
10,200.0	7,535.0	7,731.7	7,562.0	49.1	28.0	90.00	-2,867.0	-517.5	337.7	275.8	61.89	5.456		
10,300.0	7,535.0	7,731.7	7,562.0	50.8	28.0	90.00	-2,867.0	-517.5	258.6	195.0	63.58	4.067		
10,400.0	7,535.0	7,731.7	7,562.0	52.5	28.0	90.00	-2,867.0	-517.5	199.3	134.0	65.28	3.053		
10,485.8	7,535.0	7,731.7	7,562.0	53.9	28.0	90.00	-2,867.0	-517.5	179.9	113.1	66.73	2.695 CC, ES		
10,500.0	7,535.0	7,731.7	7,562.0	54.1	28.0	90.00	-2,867.0	-517.5	180.4	113.4	66.98	2.694 SF		
10,600.0	7,535.0	7,731.7	7,562.0	55.8	28.0	90.00	-2,867.0	-517.5	213.1	144.4	68.68	3.102		
10,700.0	7,535.0	7,731.7	7,562.0	57.5	28.0	90.00	-2,867.0	-517.5	279.7	209.3	70.38	3.974		
10,800.0	7,535.0	7,731.7	7,562.0	59.2	28.0	90.00	-2,867.0	-517.5	362.0	289.9	72.09	5.022		
10,900.0	7,535.0	7,731.7	7,562.0	60.9	28.0	90.00	-2,867.0	-517.5	451.6	377.8	73.80	6.118		
11,000.0	7,535.0	7,731.7	7,562.0	62.6	28.0	90.00	-2,867.0	-517.5	544.8	469.2	75.52	7.214		
11,100.0	7,535.0	7,731.7	7,562.0	64.3	28.0	90.00	-2,867.0	-517.5	640.0	562.8	77.23	8.286		
11,200.0	7,535.0	7,731.7	7,562.0	66.0	28.0	90.00	-2,867.0	-517.5	736.5	657.6	78.95	9.328		
11,300.0	7,535.0	7,731.7	7,562.0	67.7	28.0	90.00	-2,867.0	-517.5	833.8	753.2	80.67	10.336		
11,400.0	7,535.0	7,731.7	7,562.0	69.4	28.0	90.00	-2,867.0	-517.5	931.7	849.3	82.39	11.308		
11,496.2	7,535.0	7,731.7	7,562.0	71.1	28.0	90.00	-2,867.0	-517.5	1,026.3	942.2	84.05	12.210		
11,500.0	7,535.0	7,731.7	7,562.0	71.2	28.0	90.00	-2,867.0	-517.5	1,030.0	945.9	84.12	12.245		
11,600.0	7,535.0	7,731.7	7,562.0	72.9	28.0	90.00	-2,867.0	-517.5	1,128.6	1,042.8	85.84	13.148		
11,700.0	7,535.0	7,731.7	7,562.0	74.6	28.0	90.00	-2,867.0	-517.5	1,227.5	1,139.9	87.57	14.017		
11,800.0	7,535.0	7,731.7	7,562.0	76.3	28.0	90.00	-2,867.0	-517.5	1,326.5	1,237.2	89.30	14.854		
11,900.0	7,535.0	7,731.7	7,562.0	78.0	28.0	90.00	-2,867.0	-517.5	1,425.6	1,334.6	91.03	15.661		
12,000.0	7,535.0	7,731.7	7,562.0	79.7	28.0	90.00	-2,867.0	-517.5	1,524.8	1,432.1	92.76	16.439		
12,100.0	7,535.0	7,731.7	7,562.0	81.5	28.0	90.00	-2,867.0	-517.5	1,624.2	1,529.7	94.49	17.190		
12,200.0	7,535.0	7,731.7	7,562.0	83.2	28.0	90.00	-2,867.0	-517.5	1,723.6	1,627.4	96.22	17.913		
12,296.2	7,535.0	7,731.7	7,562.0	84.9	28.0	90.00	-2,867.0	-517.5	1,819.3	1,721.4	97.89	18.586		
12,300.0	7,535.0	7,731.7	7,562.0	84.9	28.0	90.00	-2,867.0	-517.5	1,823.1	1,725.1	97.96	18.610		
12,400.0	7,535.0	7,731.7	7,562.0	86.6	28.0	90.00	-2,867.0	-517.5	1,922.4	1,822.5	99.91	19.241		
12,492.9	7,535.0	7,731.7	7,562.0	88.3	28.0	90.00	-2,867.0	-517.5	2,014.4	1,912.7	101.69	19.809		
12,500.0	7,535.0	7,731.7	7,562.0	88.4	28.0	90.00	-2,867.0	-517.5	2,021.4	1,919.6	101.82	19.854		
12,600.0	7,535.0	7,731.7	7,562.0	90.1	28.0	90.00	-2,867.0	-517.5	2,120.3	2,016.7	103.55	20.476		
12,700.0	7,535.0	7,731.7	7,562.0	91.9	28.0	90.00	-2,867.0	-517.5	2,219.3	2,114.0	105.29	21.078		
12,800.0	7,535.0	7,731.7	7,562.0	93.6	28.0	90.00	-2,867.0	-517.5	2,318.3	2,211.3	107.03	21.661		
12,900.0	7,535.0	7,731.7	7,562.0	95.3	28.0	90.00	-2,867.0	-517.5	2,417.5	2,308.7	108.76	22.227		
13,000.0	7,535.0	7,731.7	7,562.0	97.1	28.0	90.00	-2,867.0	-517.5	2,516.7	2,406.2	110.50	22.775		
13,100.0	7,535.0	7,731.7	7,562.0	98.8	28.0	90.00	-2,867.0	-517.5	2,615.9	2,503.7	112.24	23.306		
13,200.0	7,535.0	7,731.7	7,562.0	100.5	28.0	90.00	-2,867.0	-517.5	2,715.2	2,601.3	113.98	23.822		
13,300.0	7,535.0	7,731.7	7,562.0	102.3	28.0	90.00	-2,867.0	-517.5	2,814.6	2,698.9	115.72	24.322		
13,400.0	7,535.0	7,731.7	7,562.0	104.0	28.0	90.00	-2,867.0	-517.5	2,914.0	2,796.6	117.46	24.808		
13,500.0	7,535.0	7,731.7	7,562.0	105.8	28.0	90.00	-2,867.0	-517.5	3,013.5	2,894.3	119.20	25.280		
13,600.0	7,535.0	7,731.7	7,562.0	107.5	28.0	90.00	-2,867.0	-517.5	3,113.0	2,992.0	120.94	25.739		
13,700.0	7,535.0	7,731.7	7,562.0	109.3	28.0	90.00	-2,867.0	-517.5	3,212.5	3,089.8	122.69	26.184		
13,800.0	7,535.0	7,731.7	7,562.0	111.0	28.0	90.00	-2,867.0	-517.5	3,312.0	3,187.6	124.43	26.618		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Plan #1													<b>Offset Site Error:</b> 0.0 ft
Survey Program: 0-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
13,900.0	7,535.0	7,731.7	7,562.0	112.7	28.0	90.00	-2,867.0	-517.5	3,411.6	3,285.4	126.17	27.039	
14,000.0	7,535.0	7,731.7	7,562.0	114.5	28.0	90.00	-2,867.0	-517.5	3,511.2	3,383.3	127.92	27.449	
14,100.0	7,535.0	7,731.7	7,562.0	116.2	28.0	90.00	-2,867.0	-517.5	3,610.8	3,481.1	129.66	27.848	
14,200.0	7,535.0	7,731.7	7,562.0	118.0	28.0	90.00	-2,867.0	-517.5	3,710.4	3,579.0	131.40	28.237	
14,300.0	7,535.0	7,731.7	7,562.0	119.7	28.0	90.00	-2,867.0	-517.5	3,810.1	3,677.0	133.15	28.616	
14,400.0	7,535.0	7,731.7	7,562.0	121.5	28.0	90.00	-2,867.0	-517.5	3,909.8	3,774.9	134.89	28.985	
14,500.0	7,535.0	7,731.7	7,562.0	123.2	28.0	90.00	-2,867.0	-517.5	4,009.5	3,872.8	136.64	29.344	
14,600.0	7,535.0	7,731.7	7,562.0	124.9	28.0	90.00	-2,867.0	-517.5	4,109.2	3,970.8	138.38	29.694	
14,672.4	7,535.0	7,731.7	7,562.0	126.2	28.0	90.00	-2,867.0	-517.5	4,181.3	4,041.7	139.65	29.943	
14,672.9	7,535.0	7,731.7	7,562.0	126.2	28.0	90.00	-2,867.0	-517.5	4,181.9	4,042.2	139.65	29.944	





# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Plan #2													Offset Site Error: 0.0 ft			
Survey Program: 0-MWD															Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor				
0.0	0.0	27.0	27.0	0.0	0.0	163.30	-2,834.1	850.3	2,958.9							
100.0	100.0	127.0	127.0	0.2	0.2	163.30	-2,834.1	850.3	2,958.9	2,958.6	0.35	8,562.229				
200.0	200.0	227.0	227.0	0.3	0.4	163.30	-2,834.1	850.3	2,958.9	2,958.2	0.69	4,259.604				
300.0	300.0	327.0	327.0	0.5	0.5	163.30	-2,834.1	850.3	2,958.9	2,957.9	1.04	2,834.988				
400.0	400.0	427.0	427.0	0.7	0.7	163.30	-2,834.1	850.3	2,958.9	2,957.5	1.39	2,124.465				
500.0	500.0	527.0	527.0	0.8	0.9	163.30	-2,834.1	850.3	2,958.9	2,957.2	1.74	1,698.720				
600.0	600.0	627.0	627.0	1.0	1.1	163.30	-2,834.1	850.3	2,958.9	2,956.8	2.09	1,415.128				
700.0	700.0	727.0	727.0	1.2	1.2	163.30	-2,834.1	850.3	2,958.9	2,956.5	2.44	1,212.677				
800.0	800.0	827.0	827.0	1.4	1.4	163.30	-2,834.1	850.3	2,958.9	2,956.1	2.79	1,060.903				
900.0	900.0	927.0	927.0	1.5	1.6	163.30	-2,834.1	850.3	2,958.9	2,955.8	3.14	942.894				
1,000.0	1,000.0	1,027.0	1,027.0	1.7	1.8	163.30	-2,834.1	850.3	2,958.9	2,955.4	3.49	848.510				
1,100.0	1,100.0	1,127.0	1,127.0	1.9	1.9	163.30	-2,834.1	850.3	2,958.9	2,955.1	3.84	771.303				
1,200.0	1,200.0	1,227.0	1,227.0	2.1	2.1	-144.47	-2,834.1	850.3	2,959.6	2,955.4	4.19	707.179				
1,300.0	1,300.0	1,356.0	1,355.9	2.2	2.3	-144.46	-2,834.1	848.4	2,961.4	2,956.8	4.59	645.794				
1,400.0	1,399.9	1,493.4	1,493.1	2.4	2.6	-144.36	-2,834.3	840.0	2,963.3	2,958.3	5.01	591.426				
1,500.0	1,499.7	1,630.3	1,629.2	2.6	2.9	-144.17	-2,834.7	825.1	2,965.4	2,959.9	5.47	542.432				
1,600.0	1,599.4	1,766.3	1,763.5	2.8	3.2	-143.88	-2,835.2	803.9	2,967.7	2,961.7	5.97	496.759				
1,619.7	1,619.0	1,793.0	1,789.7	2.8	3.3	-143.81	-2,835.3	799.0	2,968.2	2,962.1	6.08	488.279				
1,700.0	1,699.0	1,900.9	1,895.3	3.0	3.6	-143.50	-2,835.8	776.7	2,969.8	2,963.3	6.55	453.246				
1,800.0	1,798.5	2,031.2	2,021.6	3.2	4.1	-143.03	-2,836.6	744.5	2,970.9	2,963.7	7.21	411.895				
1,900.0	1,898.1	2,129.1	2,115.9	3.4	4.5	-142.64	-2,837.2	718.4	2,971.6	2,963.8	7.79	381.337				
2,000.0	1,997.7	2,226.9	2,210.2	3.6	4.9	-142.25	-2,837.9	692.2	2,972.5	2,964.1	8.39	354.210				
2,100.0	2,097.3	2,324.8	2,304.5	3.9	5.4	-141.87	-2,838.5	666.1	2,973.5	2,964.5	9.01	330.092				
2,200.0	2,196.9	2,422.6	2,398.8	4.1	5.8	-141.48	-2,839.1	640.0	2,974.6	2,965.0	9.64	308.637				
2,300.0	2,296.5	2,520.5	2,493.1	4.3	6.2	-141.09	-2,839.7	613.8	2,975.9	2,965.6	10.28	289.512				
2,400.0	2,396.1	2,618.3	2,587.3	4.5	6.7	-140.70	-2,840.4	587.7	2,977.3	2,966.4	10.93	272.411				
2,500.0	2,495.7	2,716.2	2,681.6	4.7	7.2	-140.31	-2,841.0	561.6	2,978.9	2,967.3	11.59	257.067				
2,600.0	2,595.3	2,814.0	2,775.9	5.0	7.6	-139.93	-2,841.6	535.4	2,980.6	2,968.3	12.25	243.249				
2,700.0	2,694.8	2,911.9	2,870.2	5.2	8.1	-139.54	-2,842.3	509.3	2,982.4	2,969.5	12.92	230.760				
2,800.0	2,794.4	3,009.7	2,964.5	5.4	8.6	-139.15	-2,842.9	483.2	2,984.4	2,970.8	13.60	219.430				
2,900.0	2,894.0	3,107.6	3,058.8	5.6	9.1	-138.77	-2,843.5	457.1	2,986.6	2,972.3	14.28	209.117				
3,000.0	2,993.6	3,205.4	3,153.1	5.9	9.6	-138.38	-2,844.1	430.9	2,988.9	2,973.9	14.97	199.697				
3,100.0	3,093.2	3,303.3	3,247.4	6.1	10.0	-138.00	-2,844.8	404.8	2,991.3	2,975.6	15.66	191.066				
3,200.0	3,192.8	3,401.1	3,341.7	6.3	10.5	-137.61	-2,845.4	378.7	2,993.8	2,977.5	16.35	183.134				
3,300.0	3,292.4	3,498.9	3,436.0	6.5	11.0	-137.23	-2,846.0	352.5	2,996.5	2,979.5	17.04	175.823				
3,400.0	3,392.0	3,596.8	3,530.3	6.8	11.5	-136.85	-2,846.6	326.4	2,999.4	2,981.6	17.74	169.066				
3,500.0	3,491.6	3,694.6	3,624.5	7.0	12.0	-136.47	-2,847.3	300.3	3,002.3	2,983.9	18.44	162.806				
3,600.0	3,591.1	3,792.5	3,718.8	7.2	12.5	-136.09	-2,847.9	274.1	3,005.5	2,986.3	19.14	156.993				
3,700.0	3,690.7	3,890.3	3,813.1	7.5	13.0	-135.70	-2,848.5	248.0	3,008.7	2,988.9	19.85	151.582				
3,800.0	3,790.3	3,988.2	3,907.4	7.7	13.5	-135.33	-2,849.1	221.9	3,012.1	2,991.6	20.56	146.535				
3,900.0	3,889.9	4,086.0	4,001.7	7.9	14.0	-134.95	-2,849.8	195.7	3,015.6	2,994.4	21.26	141.819				
4,000.0	3,989.5	4,183.9	4,096.0	8.2	14.5	-134.57	-2,850.4	169.6	3,019.3	2,997.3	21.97	137.402				
4,100.0	4,089.1	4,281.7	4,190.3	8.4	14.9	-134.19	-2,851.0	143.5	3,023.1	3,000.4	22.69	133.259				
4,200.0	4,188.7	4,379.6	4,284.6	8.6	15.4	-133.82	-2,851.6	117.4	3,027.0	3,003.6	23.40	129.366				
4,300.0	4,288.3	4,477.4	4,378.9	8.9	15.9	-133.44	-2,852.3	91.2	3,031.1	3,007.0	24.11	125.703				
4,400.0	4,387.9	4,575.3	4,473.2	9.1	16.4	-133.07	-2,852.9	65.1	3,035.3	3,010.5	24.83	122.250				
4,500.0	4,487.4	4,673.1	4,567.5	9.3	16.9	-132.69	-2,853.5	39.0	3,039.7	3,014.1	25.55	118.991				
4,600.0	4,587.0	4,771.0	4,661.7	9.6	17.4	-132.32	-2,854.2	12.8	3,044.1	3,017.9	26.26	115.910				
4,700.0	4,686.6	4,868.8	4,756.0	9.8	17.9	-131.95	-2,854.8	-13.3	3,048.8	3,021.8	26.98	112.995				
4,800.0	4,786.2	4,966.6	4,850.3	10.0	18.4	-131.58	-2,855.4	-39.4	3,053.5	3,025.8	27.70	110.233				
4,900.0	4,885.8	5,064.5	4,944.6	10.3	18.9	-131.21	-2,856.0	-65.6	3,058.4	3,030.0	28.42	107.612				
5,000.0	4,985.4	5,162.3	5,038.9	10.5	19.4	-130.84	-2,856.7	-91.7	3,063.4	3,034.2	29.14	105.124				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Plan #2													Offset Site Error: 0.0 ft			
Survey Program: 0-MWD															Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning			
5,100.0	5,085.0	5,260.2	5,133.2	10.7	19.9	-130.48	-2,857.3	-117.8	3,068.5	3,038.7	29.86	102.758				
5,200.0	5,184.6	5,358.0	5,227.5	11.0	20.4	-130.11	-2,857.9	-144.0	3,073.8	3,043.2	30.58	100.507				
5,300.0	5,284.2	5,455.9	5,321.8	11.2	20.9	-129.75	-2,858.5	-170.1	3,079.2	3,047.9	31.30	98.362				
5,400.0	5,383.7	5,553.7	5,416.1	11.4	21.4	-129.38	-2,859.2	-196.2	3,084.7	3,052.7	32.03	96.317				
5,500.0	5,483.3	5,651.6	5,510.4	11.7	21.9	-129.02	-2,859.8	-222.3	3,090.4	3,057.6	32.75	94.366				
5,600.0	5,582.9	5,749.4	5,604.7	11.9	22.4	-128.66	-2,860.4	-248.5	3,096.1	3,062.7	33.47	92.502				
5,700.0	5,682.5	5,847.3	5,698.9	12.1	22.9	-128.30	-2,861.0	-274.6	3,102.0	3,067.9	34.19	90.721				
5,800.0	5,782.1	5,945.1	5,793.2	12.4	23.4	-127.95	-2,861.7	-300.7	3,108.1	3,073.2	34.92	89.016				
5,900.0	5,881.7	6,043.0	5,887.5	12.6	23.9	-127.59	-2,862.3	-326.9	3,114.2	3,078.6	35.64	87.385				
6,000.0	5,981.3	6,140.8	5,981.8	12.8	24.4	-127.23	-2,862.9	-353.0	3,120.5	3,084.2	36.36	85.822				
6,100.0	6,080.9	6,238.7	6,076.1	13.1	24.9	-126.88	-2,863.5	-379.1	3,126.9	3,089.8	37.08	84.324				
6,200.0	6,180.5	6,336.5	6,170.4	13.3	25.4	-126.53	-2,864.2	-405.3	3,133.5	3,095.7	37.80	82.887				
6,300.0	6,280.0	6,438.3	6,268.7	13.5	25.9	-126.18	-2,864.8	-431.6	3,140.1	3,101.6	38.51	81.540				
6,400.0	6,379.6	6,542.9	6,370.7	13.8	26.3	-125.89	-2,865.4	-455.2	3,146.6	3,107.4	39.16	80.354				
6,500.0	6,479.2	6,648.7	6,474.5	14.0	26.7	-125.66	-2,865.9	-475.2	3,153.0	3,113.2	39.75	79.325				
6,600.0	6,578.8	6,755.2	6,579.8	14.2	27.0	-125.51	-2,866.2	-491.5	3,159.2	3,118.9	40.27	78.441				
6,700.0	6,678.4	6,862.3	6,686.1	14.5	27.2	-125.43	-2,866.5	-503.9	3,165.2	3,124.4	40.74	77.695				
6,800.0	6,778.0	6,969.6	6,793.0	14.7	27.4	-125.42	-2,866.7	-512.3	3,170.9	3,129.8	41.14	77.079				
6,900.0	6,877.6	7,076.8	6,900.1	14.9	27.5	-125.48	-2,866.8	-516.7	3,176.5	3,135.0	41.48	76.584				
6,953.0	6,930.4	7,133.5	6,956.8	15.1	27.6	-125.54	-2,866.9	-517.5	3,179.3	3,137.7	41.64	76.353				
7,000.0	6,977.2	7,180.8	7,004.2	15.1	27.6	-67.05	-2,866.9	-517.5	3,179.9	3,138.1	41.78	76.107				
7,050.0	7,027.0	7,230.6	7,054.0	15.2	27.7	-28.30	-2,866.9	-517.5	3,176.2	3,134.6	41.66	76.235				
7,100.0	7,076.2	7,279.9	7,103.2	15.2	27.7	-15.63	-2,866.9	-517.5	3,168.3	3,127.0	41.27	76.766				
7,150.0	7,124.6	7,328.3	7,151.6	15.3	27.7	-10.00	-2,866.9	-517.5	3,156.1	3,115.5	40.61	77.714				
7,200.0	7,171.8	7,375.4	7,198.8	15.2	27.8	-6.85	-2,866.9	-517.5	3,139.8	3,100.1	39.69	79.106				
7,250.0	7,217.4	7,421.0	7,244.4	15.2	27.8	-4.81	-2,866.9	-517.5	3,119.4	3,080.8	38.52	80.981				
7,300.0	7,261.1	7,464.7	7,288.1	15.2	27.9	-3.34	-2,866.9	-517.5	3,095.1	3,058.0	37.11	83.394				
7,350.0	7,302.5	7,506.1	7,329.5	15.2	27.9	-2.18	-2,866.9	-517.5	3,067.1	3,031.6	35.49	86.415				
7,400.0	7,341.3	7,544.9	7,368.3	15.1	27.9	-1.17	-2,866.9	-517.5	3,035.6	3,001.9	33.68	90.133				
7,450.0	7,377.2	7,580.8	7,404.2	15.1	28.0	-0.23	-2,866.9	-517.5	3,000.9	2,969.2	31.70	94.657				
7,500.0	7,410.0	7,613.6	7,437.0	15.1	28.0	0.73	-2,866.9	-517.5	2,963.1	2,933.5	29.60	100.107				
7,550.0	7,439.4	7,643.0	7,466.4	15.2	28.0	1.81	-2,866.9	-517.5	2,922.7	2,895.3	27.42	106.601				
7,600.0	7,465.2	7,668.8	7,492.2	15.2	28.0	3.13	-2,866.9	-517.5	2,879.9	2,854.7	25.22	114.195				
7,650.0	7,487.1	7,690.7	7,514.1	15.3	28.0	4.88	-2,866.9	-517.5	2,835.0	2,811.9	23.10	122.738				
7,700.0	7,505.1	7,708.7	7,532.1	15.5	28.1	7.48	-2,866.9	-517.5	2,788.4	2,767.2	21.21	131.477				
7,750.0	7,518.9	7,722.5	7,545.9	15.7	28.1	11.83	-2,866.9	-517.5	2,740.4	2,720.6	19.86	137.980				
7,800.0	7,528.5	7,732.2	7,555.5	15.9	28.1	20.71	-2,866.9	-517.5	2,691.4	2,671.5	19.89	135.305				
7,850.0	7,533.9	7,737.5	7,560.9	16.2	28.1	45.40	-2,866.9	-517.5	2,641.8	2,617.7	24.08	109.720				
7,886.2	7,535.0	7,738.6	7,562.0	16.4	28.1	90.00	-2,866.9	-517.5	2,605.7	2,577.8	27.92	93.340				
7,900.0	7,535.0	7,738.6	7,562.0	16.5	28.1	90.00	-2,866.9	-517.5	2,592.0	2,563.9	28.02	92.505				
8,000.0	7,535.0	7,738.6	7,562.0	17.2	28.1	90.00	-2,866.9	-517.5	2,492.2	2,463.3	28.86	86.358				
8,100.0	7,535.0	7,738.6	7,562.0	18.1	28.1	90.00	-2,866.9	-517.5	2,392.5	2,362.6	29.84	80.168				
8,200.0	7,535.0	7,738.6	7,562.0	19.1	28.1	90.00	-2,866.9	-517.5	2,292.8	2,261.8	30.95	74.084				
8,300.0	7,535.0	7,738.6	7,562.0	20.2	28.1	90.00	-2,866.9	-517.5	2,193.1	2,160.9	32.15	68.209				
8,400.0	7,535.0	7,738.6	7,562.0	21.4	28.1	90.00	-2,866.9	-517.5	2,093.4	2,060.0	33.44	62.606				
8,500.0	7,535.0	7,738.6	7,562.0	22.7	28.1	90.00	-2,866.9	-517.5	1,993.8	1,959.0	34.79	57.309				
8,600.0	7,535.0	7,738.6	7,562.0	24.0	28.1	90.00	-2,866.9	-517.5	1,894.3	1,858.1	36.20	52.330				
8,700.0	7,535.0	7,738.6	7,562.0	25.4	28.1	90.00	-2,866.9	-517.5	1,794.7	1,757.1	37.65	47.668				
8,800.0	7,535.0	7,738.6	7,562.0	26.9	28.1	90.00	-2,866.9	-517.5	1,695.3	1,656.1	39.14	43.312				
8,900.0	7,535.0	7,738.6	7,562.0	28.3	28.1	90.00	-2,866.9	-517.5	1,595.9	1,555.2	40.66	39.246				
9,000.0	7,535.0	7,738.6	7,562.0	29.8	28.1	90.00	-2,866.9	-517.5	1,496.6	1,454.3	42.21	35.454				
9,100.0	7,535.0	7,738.6	7,562.0	31.3	28.1	90.00	-2,866.9	-517.5	1,397.3	1,353.5	43.78	31.915				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Plan #2													Offset Site Error: 0.0 ft			
Survey Program: 0-MWD															Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning			
9,200.0	7,535.0	7,738.6	7,562.0	32.9	28.1	90.00	-2,866.9	-517.5	1,298.2	1,252.9	45.37	28.613				
9,300.0	7,535.0	7,738.6	7,562.0	34.4	28.1	90.00	-2,866.9	-517.5	1,199.3	1,152.3	46.98	25.528				
9,400.0	7,535.0	7,738.6	7,562.0	36.0	28.1	90.00	-2,866.9	-517.5	1,100.5	1,051.9	48.60	22.644				
9,500.0	7,535.0	7,738.6	7,562.0	37.6	28.1	90.00	-2,866.9	-517.5	1,002.0	951.8	50.23	19.947				
9,600.0	7,535.0	7,738.6	7,562.0	39.2	28.1	90.00	-2,866.9	-517.5	903.8	851.9	51.88	17.422				
9,700.0	7,535.0	7,738.6	7,562.0	40.9	28.1	90.00	-2,866.9	-517.5	806.0	752.5	53.53	15.058				
9,800.0	7,535.0	7,738.6	7,562.0	42.5	28.1	90.00	-2,866.9	-517.5	708.9	653.7	55.19	12.845				
9,900.0	7,535.0	7,738.6	7,562.0	44.1	28.1	90.00	-2,866.9	-517.5	612.7	555.8	56.86	10.776				
10,000.0	7,535.0	7,738.6	7,562.0	45.8	28.1	90.00	-2,866.9	-517.5	517.9	459.4	58.53	8.848				
10,100.0	7,535.0	7,738.6	7,562.0	47.4	28.1	90.00	-2,866.9	-517.5	425.6	365.4	60.22	7.068				
10,200.0	7,535.0	7,738.6	7,562.0	49.1	28.1	90.00	-2,866.9	-517.5	337.6	275.7	61.90	5.454				
10,300.0	7,535.0	7,738.6	7,562.0	50.8	28.1	90.00	-2,866.9	-517.5	258.5	194.9	63.59	4.065				
10,400.0	7,535.0	7,738.6	7,562.0	52.5	28.1	90.00	-2,866.9	-517.5	199.2	134.0	65.29	3.052				
10,485.7	7,535.0	7,738.6	7,562.0	53.9	28.1	90.00	-2,866.9	-517.5	179.9	113.1	66.75	2.695 CC, ES				
10,500.0	7,535.0	7,738.6	7,562.0	54.1	28.1	90.00	-2,866.9	-517.5	180.4	113.4	66.99	2.693 SF				
10,600.0	7,535.0	7,738.6	7,562.0	55.8	28.1	90.00	-2,866.9	-517.5	213.1	144.4	68.69	3.102				
10,700.0	7,535.0	7,738.6	7,562.0	57.5	28.1	90.00	-2,866.9	-517.5	279.8	209.4	70.40	3.974				
10,800.0	7,535.0	7,738.6	7,562.0	59.2	28.1	90.00	-2,866.9	-517.5	362.1	290.0	72.11	5.022				
10,900.0	7,535.0	7,738.6	7,562.0	60.9	28.1	90.00	-2,866.9	-517.5	451.7	377.8	73.82	6.119				
11,000.0	7,535.0	7,738.6	7,562.0	62.6	28.1	90.00	-2,866.9	-517.5	544.8	469.3	75.53	7.213				
11,100.0	7,535.0	7,738.6	7,562.0	64.3	28.1	90.00	-2,866.9	-517.5	640.1	562.8	77.25	8.286				
11,200.0	7,535.0	7,738.6	7,562.0	66.0	28.1	90.00	-2,866.9	-517.5	736.6	657.6	78.96	9.328				
11,300.0	7,535.0	7,738.6	7,562.0	67.7	28.1	90.00	-2,866.9	-517.5	833.9	753.2	80.68	10.336				
11,400.0	7,535.0	7,738.6	7,562.0	69.4	28.1	90.00	-2,866.9	-517.5	931.8	849.4	82.41	11.308				
11,496.2	7,535.0	7,738.6	7,562.0	71.1	28.1	90.00	-2,866.9	-517.5	1,026.4	942.3	84.06	12.209				
11,500.0	7,535.0	7,738.6	7,562.0	71.2	28.1	90.00	-2,866.9	-517.5	1,030.1	946.0	84.13	12.244				
11,600.0	7,535.0	7,738.6	7,562.0	72.9	28.1	90.00	-2,866.9	-517.5	1,128.7	1,042.9	85.85	13.147				
11,700.0	7,535.0	7,738.6	7,562.0	74.6	28.1	90.00	-2,866.9	-517.5	1,227.5	1,140.0	87.58	14.016				
11,800.0	7,535.0	7,738.6	7,562.0	76.3	28.1	90.00	-2,866.9	-517.5	1,326.5	1,237.2	89.31	14.853				
11,900.0	7,535.0	7,738.6	7,562.0	78.0	28.1	90.00	-2,866.9	-517.5	1,425.7	1,334.6	91.04	15.660				
12,000.0	7,535.0	7,738.6	7,562.0	79.7	28.1	90.00	-2,866.9	-517.5	1,524.9	1,432.2	92.77	16.438				
12,100.0	7,535.0	7,738.6	7,562.0	81.5	28.1	90.00	-2,866.9	-517.5	1,624.3	1,529.8	94.50	17.188				
12,200.0	7,535.0	7,738.6	7,562.0	83.2	28.1	90.00	-2,866.9	-517.5	1,723.7	1,627.5	96.23	17.912				
12,296.2	7,535.0	7,738.6	7,562.0	84.9	28.1	90.00	-2,866.9	-517.5	1,819.4	1,721.5	97.90	18.585				
12,300.0	7,535.0	7,738.6	7,562.0	84.9	28.1	90.00	-2,866.9	-517.5	1,823.2	1,725.2	97.97	18.609				
12,400.0	7,535.0	7,738.6	7,562.0	86.6	28.1	90.00	-2,866.9	-517.5	1,922.5	1,822.6	99.93	19.239				
12,492.9	7,535.0	7,738.6	7,562.0	88.3	28.1	90.00	-2,866.9	-517.5	2,014.5	1,912.8	101.71	19.807				
12,500.0	7,535.0	7,738.6	7,562.0	88.4	28.1	90.00	-2,866.9	-517.5	2,021.5	1,919.7	101.83	19.852				
12,600.0	7,535.0	7,738.6	7,562.0	90.1	28.1	90.00	-2,866.9	-517.5	2,120.4	2,016.8	103.56	20.474				
12,700.0	7,535.0	7,738.6	7,562.0	91.9	28.1	90.00	-2,866.9	-517.5	2,219.3	2,114.0	105.30	21.076				
12,800.0	7,535.0	7,738.6	7,562.0	93.6	28.1	90.00	-2,866.9	-517.5	2,318.4	2,211.4	107.04	21.660				
12,900.0	7,535.0	7,738.6	7,562.0	95.3	28.1	90.00	-2,866.9	-517.5	2,417.5	2,308.8	108.78	22.225				
13,000.0	7,535.0	7,738.6	7,562.0	97.1	28.1	90.00	-2,866.9	-517.5	2,516.7	2,406.2	110.51	22.773				
13,100.0	7,535.0	7,738.6	7,562.0	98.8	28.1	90.00	-2,866.9	-517.5	2,616.0	2,503.8	112.25	23.305				
13,200.0	7,535.0	7,738.6	7,562.0	100.5	28.1	90.00	-2,866.9	-517.5	2,715.3	2,601.3	113.99	23.820				
13,300.0	7,535.0	7,738.6	7,562.0	102.3	28.1	90.00	-2,866.9	-517.5	2,814.7	2,699.0	115.73	24.321				
13,400.0	7,535.0	7,738.6	7,562.0	104.0	28.1	90.00	-2,866.9	-517.5	2,914.1	2,796.6	117.47	24.806				
13,500.0	7,535.0	7,738.6	7,562.0	105.8	28.1	90.00	-2,866.9	-517.5	3,013.6	2,894.3	119.22	25.278				
13,600.0	7,535.0	7,738.6	7,562.0	107.5	28.1	90.00	-2,866.9	-517.5	3,113.0	2,992.1	120.96	25.737				
13,700.0	7,535.0	7,738.6	7,562.0	109.3	28.1	90.00	-2,866.9	-517.5	3,212.6	3,089.9	122.70	26.182				
13,800.0	7,535.0	7,738.6	7,562.0	111.0	28.1	90.00	-2,866.9	-517.5	3,312.1	3,187.7	124.44	26.616				
13,900.0	7,535.0	7,738.6	7,562.0	112.7	28.1	90.00	-2,866.9	-517.5	3,411.7	3,285.5	126.18	27.037				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R66W (Rodman Bruntz) - OLIVE 13-26 (EXISTING) - Existing - Plan #2													<b>Offset Site Error:</b> 0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b> 0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
14,000.0	7,535.0	7,738.6	7,562.0	114.5	28.1	90.00	-2,866.9	-517.5	3,511.3	3,383.3	127.93	27.447	
14,100.0	7,535.0	7,738.6	7,562.0	116.2	28.1	90.00	-2,866.9	-517.5	3,610.9	3,481.2	129.67	27.847	
14,200.0	7,535.0	7,738.6	7,562.0	118.0	28.1	90.00	-2,866.9	-517.5	3,710.5	3,579.1	131.42	28.235	
14,300.0	7,535.0	7,738.6	7,562.0	119.7	28.1	90.00	-2,866.9	-517.5	3,810.2	3,677.0	133.16	28.614	
14,400.0	7,535.0	7,738.6	7,562.0	121.5	28.1	90.00	-2,866.9	-517.5	3,909.9	3,775.0	134.90	28.983	
14,500.0	7,535.0	7,738.6	7,562.0	123.2	28.1	90.00	-2,866.9	-517.5	4,009.6	3,872.9	136.65	29.342	
14,600.0	7,535.0	7,738.6	7,562.0	124.9	28.1	90.00	-2,866.9	-517.5	4,109.3	3,970.9	138.39	29.692	
14,672.4	7,535.0	7,738.6	7,562.0	126.2	28.1	90.00	-2,866.9	-517.5	4,181.4	4,041.8	139.66	29.941	
14,672.9	7,535.0	7,738.6	7,562.0	126.2	28.1	90.00	-2,866.9	-517.5	4,181.9	4,042.3	139.67	29.942	



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 23-26 (EXISTING) - Existing - Existing													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	10.0	10.0	0.0	0.0	162.35	-2,893.5	920.5	3,036.4					
100.0	100.0	110.0	110.0	0.2	0.2	162.35	-2,893.5	920.5	3,036.4	3,036.0	0.34	8,830.988		
200.0	200.0	210.0	210.0	0.3	0.4	162.35	-2,893.5	920.5	3,036.4	3,035.7	0.69	4,382.129		
300.0	300.0	310.0	310.0	0.5	0.5	162.35	-2,893.5	920.5	3,036.4	3,035.3	1.04	2,914.079		
400.0	400.0	410.0	410.0	0.7	0.7	162.35	-2,893.5	920.5	3,036.4	3,035.0	1.39	2,182.817		
500.0	500.0	510.0	510.0	0.8	0.9	162.35	-2,893.5	920.5	3,036.4	3,034.6	1.74	1,744.940		
600.0	600.0	610.0	610.0	1.0	1.1	162.35	-2,893.5	920.5	3,036.4	3,034.3	2.09	1,453.388		
700.0	700.0	710.0	710.0	1.2	1.2	162.35	-2,893.5	920.5	3,036.4	3,033.9	2.44	1,245.315		
800.0	800.0	810.0	810.0	1.4	1.4	162.35	-2,893.5	920.5	3,036.4	3,033.6	2.79	1,089.358		
900.0	900.0	910.0	910.0	1.5	1.6	162.35	-2,893.5	920.5	3,036.4	3,033.2	3.14	968.117		
1,000.0	1,000.0	1,010.0	1,010.0	1.7	1.8	162.35	-2,893.5	920.5	3,036.4	3,032.9	3.49	871.159		
1,100.0	1,100.0	1,110.0	1,110.0	1.9	1.9	162.35	-2,893.5	920.5	3,036.4	3,032.5	3.83	791.855		
1,200.0	1,200.0	1,210.0	1,210.0	2.1	2.1	-145.42	-2,893.5	920.5	3,037.1	3,032.9	4.18	725.994		
1,300.0	1,300.0	1,310.0	1,310.0	2.2	2.3	-145.43	-2,893.5	920.5	3,039.2	3,034.7	4.53	670.621		
1,400.0	1,399.9	1,409.9	1,409.9	2.4	2.5	-145.46	-2,893.5	920.5	3,042.8	3,037.9	4.88	623.416		
1,500.0	1,499.7	1,509.7	1,509.7	2.6	2.6	-145.50	-2,893.5	920.5	3,047.9	3,042.6	5.23	582.677		
1,600.0	1,599.4	1,609.4	1,609.4	2.8	2.8	-145.54	-2,893.5	920.5	3,054.3	3,048.8	5.58	547.133		
1,619.7	1,619.0	1,629.0	1,629.0	2.8	2.8	-145.55	-2,893.5	920.5	3,055.8	3,050.1	5.65	540.662		
1,700.0	1,699.0	1,709.0	1,709.0	3.0	3.0	-145.63	-2,893.5	920.5	3,061.8	3,055.8	5.94	515.593		
1,800.0	1,798.5	1,808.5	1,808.5	3.2	3.2	-145.72	-2,893.5	920.5	3,069.3	3,063.0	6.30	487.455		
1,900.0	1,898.1	1,908.1	1,908.1	3.4	3.3	-145.82	-2,893.5	920.5	3,076.8	3,070.1	6.66	462.265		
2,000.0	1,997.7	2,007.7	2,007.7	3.6	3.5	-145.91	-2,893.5	920.5	3,084.3	3,077.3	7.02	439.595		
2,100.0	2,097.3	2,107.3	2,107.3	3.9	3.7	-146.01	-2,893.5	920.5	3,091.8	3,084.4	7.38	419.096		
2,200.0	2,196.9	2,206.9	2,206.9	4.1	3.9	-146.10	-2,893.5	920.5	3,099.3	3,091.6	7.74	400.477		
2,300.0	2,296.5	2,306.5	2,306.5	4.3	4.0	-146.19	-2,893.5	920.5	3,106.9	3,098.8	8.10	383.497		
2,400.0	2,396.1	2,406.1	2,406.1	4.5	4.2	-146.29	-2,893.5	920.5	3,114.4	3,105.9	8.46	367.952		
2,500.0	2,495.7	2,505.7	2,505.7	4.7	4.4	-146.38	-2,893.5	920.5	3,121.9	3,113.1	8.83	353.671		
2,600.0	2,595.3	2,605.3	2,605.3	5.0	4.5	-146.47	-2,893.5	920.5	3,129.5	3,120.3	9.19	340.509		
2,700.0	2,694.8	2,704.8	2,704.8	5.2	4.7	-146.56	-2,893.5	920.5	3,137.1	3,127.5	9.55	328.340		
2,800.0	2,794.4	2,804.4	2,804.4	5.4	4.9	-146.65	-2,893.5	920.5	3,144.6	3,134.7	9.92	317.059		
2,900.0	2,894.0	2,904.0	2,904.0	5.6	5.1	-146.74	-2,893.5	920.5	3,152.2	3,141.9	10.28	306.572		
3,000.0	2,993.6	3,003.6	3,003.6	5.9	5.2	-146.83	-2,893.5	920.5	3,159.8	3,149.2	10.65	296.800		
3,100.0	3,093.2	3,103.2	3,103.2	6.1	5.4	-146.92	-2,893.5	920.5	3,167.4	3,156.4	11.01	287.673		
3,200.0	3,192.8	3,202.8	3,202.8	6.3	5.6	-147.01	-2,893.5	920.5	3,175.0	3,163.6	11.37	279.129		
3,300.0	3,292.4	3,302.4	3,302.4	6.5	5.8	-147.10	-2,893.5	920.5	3,182.6	3,170.9	11.74	271.115		
3,400.0	3,392.0	3,402.0	3,402.0	6.8	5.9	-147.19	-2,893.5	920.5	3,190.2	3,178.1	12.10	263.584		
3,500.0	3,491.6	3,501.6	3,501.6	7.0	6.1	-147.28	-2,893.5	920.5	3,197.9	3,185.4	12.47	256.494		
3,600.0	3,591.1	3,601.1	3,601.1	7.2	6.3	-147.36	-2,893.5	920.5	3,205.5	3,192.7	12.83	249.806		
3,700.0	3,690.7	3,700.7	3,700.7	7.5	6.5	-147.45	-2,893.5	920.5	3,213.1	3,199.9	13.20	243.489		
3,800.0	3,790.3	3,800.3	3,800.3	7.7	6.6	-147.54	-2,893.5	920.5	3,220.8	3,207.2	13.56	237.513		
3,900.0	3,889.9	3,899.9	3,899.9	7.9	6.8	-147.62	-2,893.5	920.5	3,228.4	3,214.5	13.92	231.850		
4,000.0	3,989.5	3,999.5	3,999.5	8.2	7.0	-147.71	-2,893.5	920.5	3,236.1	3,221.8	14.29	226.478		
4,100.0	4,089.1	4,099.1	4,099.1	8.4	7.2	-147.80	-2,893.5	920.5	3,243.8	3,229.1	14.65	221.374		
4,200.0	4,188.7	4,198.7	4,198.7	8.6	7.3	-147.88	-2,893.5	920.5	3,251.5	3,236.4	15.02	216.518		
4,300.0	4,288.3	4,298.3	4,298.3	8.9	7.5	-147.96	-2,893.5	920.5	3,259.1	3,243.8	15.38	211.895		
4,400.0	4,387.9	4,397.9	4,397.9	9.1	7.7	-148.05	-2,893.5	920.5	3,266.8	3,251.1	15.74	207.486		
4,500.0	4,487.4	4,497.4	4,497.4	9.3	7.8	-148.13	-2,893.5	920.5	3,274.5	3,258.4	16.11	203.278		
4,600.0	4,587.0	4,597.0	4,597.0	9.6	8.0	-148.22	-2,893.5	920.5	3,282.2	3,265.8	16.47	199.257		
4,700.0	4,686.6	4,696.6	4,696.6	9.8	8.2	-148.30	-2,893.5	920.5	3,289.9	3,273.1	16.84	195.412		
4,800.0	4,786.2	4,796.2	4,796.2	10.0	8.4	-148.38	-2,893.5	920.5	3,297.7	3,280.5	17.20	191.730		
4,900.0	4,885.8	4,895.8	4,895.8	10.3	8.5	-148.46	-2,893.5	920.5	3,305.4	3,287.8	17.56	188.202		
5,000.0	4,985.4	4,995.4	4,995.4	10.5	8.7	-148.55	-2,893.5	920.5	3,313.1	3,295.2	17.93	184.819		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 23-26 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program:		O-MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,085.0	5,095.0	5,095.0	10.7	8.9	-148.63	-2,893.5	920.5	3,320.9	3,302.6	18.29	181.572		
5,200.0	5,184.6	5,194.6	5,194.6	11.0	9.1	-148.71	-2,893.5	920.5	3,328.6	3,310.0	18.65	178.452		
5,300.0	5,284.2	5,294.2	5,294.2	11.2	9.2	-148.79	-2,893.5	920.5	3,336.4	3,317.3	19.02	175.453		
5,400.0	5,383.7	5,393.7	5,393.7	11.4	9.4	-148.87	-2,893.5	920.5	3,344.1	3,324.7	19.38	172.567		
5,500.0	5,483.3	5,493.3	5,493.3	11.7	9.6	-148.95	-2,893.5	920.5	3,351.9	3,332.1	19.74	169.789		
5,600.0	5,582.9	5,592.9	5,592.9	11.9	9.8	-149.03	-2,893.5	920.5	3,359.7	3,339.6	20.10	167.112		
5,700.0	5,682.5	5,692.5	5,692.5	12.1	9.9	-149.11	-2,893.5	920.5	3,367.4	3,347.0	20.47	164.532		
5,800.0	5,782.1	5,792.1	5,792.1	12.4	10.1	-149.19	-2,893.5	920.5	3,375.2	3,354.4	20.83	162.042		
5,900.0	5,881.7	5,891.7	5,891.7	12.6	10.3	-149.27	-2,893.5	920.5	3,383.0	3,361.8	21.19	159.638		
6,000.0	5,981.3	5,991.3	5,991.3	12.8	10.5	-149.34	-2,893.5	920.5	3,390.8	3,369.3	21.55	157.317		
6,100.0	6,080.9	6,090.9	6,090.9	13.1	10.6	-149.42	-2,893.5	920.5	3,398.6	3,376.7	21.92	155.073		
6,200.0	6,180.5	6,190.5	6,190.5	13.3	10.8	-149.50	-2,893.5	920.5	3,406.4	3,384.1	22.28	152.904		
6,300.0	6,280.0	6,290.0	6,290.0	13.5	11.0	-149.58	-2,893.5	920.5	3,414.2	3,391.6	22.64	150.804		
6,400.0	6,379.6	6,389.6	6,389.6	13.8	11.2	-149.65	-2,893.5	920.5	3,422.1	3,399.1	23.00	148.772		
6,500.0	6,479.2	6,489.2	6,489.2	14.0	11.3	-149.73	-2,893.5	920.5	3,429.9	3,406.5	23.36	146.804		
6,600.0	6,578.8	6,588.8	6,588.8	14.2	11.5	-149.81	-2,893.5	920.5	3,437.7	3,414.0	23.73	144.896		
6,700.0	6,678.4	6,688.4	6,688.4	14.5	11.7	-149.88	-2,893.5	920.5	3,445.6	3,421.5	24.09	143.047		
6,800.0	6,778.0	6,788.0	6,788.0	14.7	11.8	-149.96	-2,893.5	920.5	3,453.4	3,429.0	24.45	141.254		
6,900.0	6,877.6	6,887.6	6,887.6	14.9	12.0	-150.03	-2,893.5	920.5	3,461.3	3,436.5	24.81	139.513		
6,953.0	6,930.4	6,940.4	6,940.4	15.1	12.1	-150.07	-2,893.5	920.5	3,465.4	3,440.4	25.00	138.611		
7,000.0	6,977.2	6,987.2	6,987.2	15.1	12.2	-91.50	-2,893.5	920.5	3,467.3	3,442.1	25.19	137.670		
7,050.0	7,027.0	7,037.0	7,037.0	15.2	12.3	-52.85	-2,893.5	920.5	3,465.4	3,440.1	25.27	137.158		
7,100.0	7,076.2	7,086.2	7,086.2	15.2	12.4	-40.49	-2,893.5	920.5	3,459.4	3,434.2	25.23	137.131		
7,150.0	7,124.6	7,134.6	7,134.6	15.3	12.5	-35.39	-2,893.5	920.5	3,449.4	3,424.3	25.08	137.557		
7,200.0	7,171.8	7,181.8	7,181.8	15.2	12.5	-33.01	-2,893.5	920.5	3,435.4	3,410.6	24.82	138.396		
7,250.0	7,217.4	7,227.4	7,227.4	15.2	12.6	-32.01	-2,893.5	920.5	3,417.7	3,393.2	24.49	139.583		
7,300.0	7,261.1	7,271.1	7,271.1	15.2	12.7	-31.87	-2,893.5	920.5	3,396.3	3,372.2	24.08	141.023		
7,350.0	7,302.5	7,312.5	7,312.5	15.2	12.8	-32.39	-2,893.5	920.5	3,371.4	3,347.8	23.65	142.568		
7,400.0	7,341.3	7,351.3	7,351.3	15.1	12.8	-33.50	-2,893.5	920.5	3,343.3	3,320.1	23.22	143.998		
7,450.0	7,377.2	7,387.2	7,387.2	15.1	12.9	-35.20	-2,893.5	920.5	3,312.1	3,289.3	22.84	145.002		
7,500.0	7,410.0	7,420.0	7,420.0	15.1	13.0	-37.54	-2,893.5	920.5	3,278.1	3,255.5	22.58	145.173		
7,550.0	7,439.4	7,449.4	7,449.4	15.2	13.0	-40.61	-2,893.5	920.5	3,241.6	3,219.1	22.50	144.046		
7,600.0	7,465.2	7,475.2	7,475.2	15.2	13.0	-44.54	-2,893.5	920.5	3,202.9	3,180.2	22.68	141.199		
7,650.0	7,487.1	7,497.1	7,497.1	15.3	13.1	-49.52	-2,893.5	920.5	3,162.2	3,139.0	23.18	136.436		
7,700.0	7,505.1	7,515.1	7,515.1	15.5	13.1	-55.73	-2,893.5	920.5	3,120.0	3,096.0	24.00	129.991		
7,750.0	7,518.9	7,528.9	7,528.9	15.7	13.1	-63.32	-2,893.5	920.5	3,076.5	3,051.4	25.09	122.619		
7,800.0	7,528.5	7,538.5	7,538.5	15.9	13.2	-72.29	-2,893.5	920.5	3,032.0	3,005.8	26.26	115.454		
7,850.0	7,533.9	7,543.9	7,543.9	16.2	13.2	-82.36	-2,893.5	920.5	2,987.0	2,959.8	27.25	109.628		
7,886.2	7,535.0	7,545.0	7,545.0	16.4	13.2	-90.00	-2,893.5	920.5	2,954.3	2,926.6	27.70	106.662		
7,900.0	7,535.0	7,545.0	7,545.0	16.5	13.2	-90.00	-2,893.5	920.5	2,941.8	2,914.0	27.80	105.816		
8,000.0	7,535.0	7,545.0	7,545.0	17.2	13.2	-90.00	-2,893.5	920.5	2,851.7	2,823.0	28.64	99.569		
8,100.0	7,535.0	7,545.0	7,545.0	18.1	13.2	-90.00	-2,893.5	920.5	2,762.3	2,732.6	29.62	93.243		
8,200.0	7,535.0	7,545.0	7,545.0	19.1	13.2	-90.00	-2,893.5	920.5	2,673.6	2,642.9	30.73	87.005		
8,300.0	7,535.0	7,545.0	7,545.0	20.2	13.2	-90.00	-2,893.5	920.5	2,585.8	2,553.8	31.93	80.973		
8,400.0	7,535.0	7,545.0	7,545.0	21.4	13.2	-90.00	-2,893.5	920.5	2,498.8	2,465.6	33.22	75.222		
8,500.0	7,535.0	7,545.0	7,545.0	22.7	13.2	-90.00	-2,893.5	920.5	2,412.9	2,378.3	34.57	69.794		
8,600.0	7,535.0	7,545.0	7,545.0	24.0	13.2	-90.00	-2,893.5	920.5	2,328.1	2,292.1	35.98	64.707		
8,700.0	7,535.0	7,545.0	7,545.0	25.4	13.2	-90.00	-2,893.5	920.5	2,244.6	2,207.2	37.43	59.964		
8,800.0	7,535.0	7,545.0	7,545.0	26.9	13.2	-90.00	-2,893.5	920.5	2,162.4	2,123.5	38.92	55.558		
8,900.0	7,535.0	7,545.0	7,545.0	28.3	13.2	-90.00	-2,893.5	920.5	2,081.9	2,041.4	40.44	51.475		
9,000.0	7,535.0	7,545.0	7,545.0	29.8	13.2	-90.00	-2,893.5	920.5	2,003.0	1,961.1	41.99	47.700		
9,100.0	7,535.0	7,545.0	7,545.0	31.3	13.2	-90.00	-2,893.5	920.5	1,926.2	1,882.6	43.56	44.215		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 23-26 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
9,200.0	7,535.0	7,545.0	7,545.0	32.9	13.2	-90.00	-2,893.5	920.5	1,851.5	1,806.4	45.15	41.005		
9,300.0	7,535.0	7,545.0	7,545.0	34.4	13.2	-90.00	-2,893.5	920.5	1,779.4	1,732.6	46.76	38.053		
9,400.0	7,535.0	7,545.0	7,545.0	36.0	13.2	-90.00	-2,893.5	920.5	1,710.0	1,661.7	48.38	35.345		
9,500.0	7,535.0	7,545.0	7,545.0	37.6	13.2	-90.00	-2,893.5	920.5	1,643.8	1,593.8	50.01	32.868		
9,600.0	7,535.0	7,545.0	7,545.0	39.2	13.2	-90.00	-2,893.5	920.5	1,581.2	1,529.6	51.66	30.610		
9,700.0	7,535.0	7,545.0	7,545.0	40.9	13.2	-90.00	-2,893.5	920.5	1,522.6	1,469.3	53.31	28.561		
9,800.0	7,535.0	7,545.0	7,545.0	42.5	13.2	-90.00	-2,893.5	920.5	1,468.4	1,413.4	54.97	26.712		
9,900.0	7,535.0	7,545.0	7,545.0	44.1	13.2	-90.00	-2,893.5	920.5	1,419.2	1,362.6	56.64	25.057		
10,000.0	7,535.0	7,545.0	7,545.0	45.8	13.2	-90.00	-2,893.5	920.5	1,375.6	1,317.3	58.32	23.589		
10,100.0	7,535.0	7,545.0	7,545.0	47.4	13.2	-90.00	-2,893.5	920.5	1,338.0	1,278.0	60.00	22.301		
10,200.0	7,535.0	7,545.0	7,545.0	49.1	13.2	-90.00	-2,893.5	920.5	1,307.0	1,245.3	61.68	21.189		
10,300.0	7,535.0	7,545.0	7,545.0	50.8	13.2	-90.00	-2,893.5	920.5	1,283.1	1,219.7	63.37	20.246		
10,400.0	7,535.0	7,545.0	7,545.0	52.5	13.2	-90.00	-2,893.5	920.5	1,266.6	1,201.5	65.07	19.465		
10,500.0	7,535.0	7,545.0	7,545.0	54.1	13.2	-90.00	-2,893.5	920.5	1,257.9	1,191.1	66.77	18.839		
10,560.0	7,535.0	7,545.0	7,545.0	55.1	13.2	-90.00	-2,893.5	920.5	1,256.5	1,188.7	67.79	18.535 CC		
10,600.0	7,535.0	7,545.0	7,545.0	55.8	13.2	-90.00	-2,893.5	920.5	1,257.1	1,188.6	68.47	18.359 ES		
10,700.0	7,535.0	7,545.0	7,545.0	57.5	13.2	-90.00	-2,893.5	920.5	1,264.2	1,194.1	70.18	18.015		
10,800.0	7,535.0	7,545.0	7,545.0	59.2	13.2	-90.00	-2,893.5	920.5	1,279.2	1,207.3	71.89	17.795		
10,900.0	7,535.0	7,545.0	7,545.0	60.9	13.2	-90.00	-2,893.5	920.5	1,301.7	1,228.1	73.60	17.686		
11,000.0	7,535.0	7,545.0	7,545.0	62.6	13.2	-90.00	-2,893.5	920.5	1,331.3	1,256.0	75.31	17.677 SF		
11,100.0	7,535.0	7,545.0	7,545.0	64.3	13.2	-90.00	-2,893.5	920.5	1,367.6	1,290.6	77.03	17.755		
11,200.0	7,535.0	7,545.0	7,545.0	66.0	13.2	-90.00	-2,893.5	920.5	1,410.1	1,331.3	78.75	17.907		
11,300.0	7,535.0	7,545.0	7,545.0	67.7	13.2	-90.00	-2,893.5	920.5	1,458.2	1,377.7	80.47	18.122		
11,400.0	7,535.0	7,545.0	7,545.0	69.4	13.2	-90.00	-2,893.5	920.5	1,511.4	1,429.2	82.19	18.390		
11,496.2	7,535.0	7,545.0	7,545.0	71.1	13.2	-90.00	-2,893.5	920.5	1,566.9	1,483.1	83.85	18.688		
11,500.0	7,535.0	7,545.0	7,545.0	71.2	13.2	-90.00	-2,893.5	920.5	1,569.2	1,485.3	83.91	18.701		
11,600.0	7,535.0	7,545.0	7,545.0	72.9	13.2	-90.00	-2,893.5	920.5	1,631.1	1,545.4	85.64	19.047		
11,700.0	7,535.0	7,545.0	7,545.0	74.6	13.2	-90.00	-2,893.5	920.5	1,696.6	1,609.2	87.36	19.420		
11,800.0	7,535.0	7,545.0	7,545.0	76.3	13.2	-90.00	-2,893.5	920.5	1,765.3	1,676.2	89.09	19.815		
11,900.0	7,535.0	7,545.0	7,545.0	78.0	13.2	-90.00	-2,893.5	920.5	1,837.0	1,746.1	90.82	20.227		
12,000.0	7,535.0	7,545.0	7,545.0	79.7	13.2	-90.00	-2,893.5	920.5	1,911.1	1,818.6	92.55	20.650		
12,100.0	7,535.0	7,545.0	7,545.0	81.5	13.2	-90.00	-2,893.5	920.5	1,987.6	1,893.3	94.28	21.082		
12,200.0	7,535.0	7,545.0	7,545.0	83.2	13.2	-90.00	-2,893.5	920.5	2,066.0	1,970.0	96.01	21.518		
12,296.2	7,535.0	7,545.0	7,545.0	84.9	13.2	-90.00	-2,893.5	920.5	2,143.2	2,045.5	97.68	21.941		
12,300.0	7,535.0	7,545.0	7,545.0	84.9	13.2	-90.00	-2,893.5	920.5	2,146.3	2,048.5	97.75	21.956		
12,400.0	7,535.0	7,545.0	7,545.0	86.6	13.2	-90.00	-2,893.5	920.5	2,229.1	2,129.5	99.69	22.360		
12,492.9	7,535.0	7,545.0	7,545.0	88.3	13.2	-90.00	-2,893.5	920.5	2,309.0	2,207.6	101.41	22.769		
12,500.0	7,535.0	7,545.0	7,545.0	88.4	13.2	-90.00	-2,893.5	920.5	2,315.2	2,213.6	101.53	22.803		
12,600.0	7,535.0	7,545.0	7,545.0	90.1	13.2	-90.00	-2,893.5	920.5	2,403.0	2,299.7	103.27	23.270		
12,700.0	7,535.0	7,545.0	7,545.0	91.9	13.2	-90.00	-2,893.5	920.5	2,491.8	2,386.7	105.00	23.730		
12,800.0	7,535.0	7,545.0	7,545.0	93.6	13.2	-90.00	-2,893.5	920.5	2,581.3	2,474.6	106.74	24.183		
12,900.0	7,535.0	7,545.0	7,545.0	95.3	13.2	-90.00	-2,893.5	920.5	2,671.6	2,563.2	108.48	24.628		
13,000.0	7,535.0	7,545.0	7,545.0	97.1	13.2	-90.00	-2,893.5	920.5	2,762.6	2,652.4	110.22	25.065		
13,100.0	7,535.0	7,545.0	7,545.0	98.8	13.2	-90.00	-2,893.5	920.5	2,854.2	2,742.2	111.96	25.494		
13,200.0	7,535.0	7,545.0	7,545.0	100.5	13.2	-90.00	-2,893.5	920.5	2,946.3	2,832.6	113.70	25.914		
13,300.0	7,535.0	7,545.0	7,545.0	102.3	13.2	-90.00	-2,893.5	920.5	3,039.0	2,923.5	115.44	26.326		
13,400.0	7,535.0	7,545.0	7,545.0	104.0	13.2	-90.00	-2,893.5	920.5	3,132.0	3,014.9	117.18	26.729		
13,500.0	7,535.0	7,545.0	7,545.0	105.8	13.2	-90.00	-2,893.5	920.5	3,225.5	3,106.6	118.92	27.124		
13,600.0	7,535.0	7,545.0	7,545.0	107.5	13.2	-90.00	-2,893.5	920.5	3,319.4	3,198.7	120.66	27.510		
13,700.0	7,535.0	7,545.0	7,545.0	109.3	13.2	-90.00	-2,893.5	920.5	3,413.6	3,291.2	122.40	27.889		
13,800.0	7,535.0	7,545.0	7,545.0	111.0	13.2	-90.00	-2,893.5	920.5	3,508.2	3,384.0	124.14	28.259		
13,900.0	7,535.0	7,545.0	7,545.0	112.7	13.2	-90.00	-2,893.5	920.5	3,603.0	3,477.1	125.89	28.621		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S26-T2N-R66W (Rodman Bruntz) - OLIVE 23-26 (EXISTING) - Existing - Existing		Offset Site Error:		0.0 ft	
Survey Program: 0-MWD															Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning				
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth 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						
14,000.0	7,535.0	7,545.0	7,545.0	114.5	13.2	-90.00	-2,893.5	920.5	3,698.1	3,570.5	127.63	28.975						
14,100.0	7,535.0	7,545.0	7,545.0	116.2	13.2	-90.00	-2,893.5	920.5	3,793.5	3,664.1	129.37	29.322						
14,200.0	7,535.0	7,545.0	7,545.0	118.0	13.2	-90.00	-2,893.5	920.5	3,889.1	3,758.0	131.12	29.661						
14,300.0	7,535.0	7,545.0	7,545.0	119.7	13.2	-90.00	-2,893.5	920.5	3,984.9	3,852.0	132.86	29.993						
14,400.0	7,535.0	7,545.0	7,545.0	121.5	13.2	-90.00	-2,893.5	920.5	4,080.9	3,946.3	134.61	30.317						
14,500.0	7,535.0	7,545.0	7,545.0	123.2	13.2	-90.00	-2,893.5	920.5	4,177.1	4,040.7	136.35	30.635						
14,600.0	7,535.0	7,545.0	7,545.0	124.9	13.2	-90.00	-2,893.5	920.5	4,273.5	4,135.4	138.10	30.945						
14,672.4	7,535.0	7,545.0	7,545.0	126.2	13.2	-90.00	-2,893.5	920.5	4,343.3	4,203.9	139.36	31.166						
14,672.9	7,535.0	7,545.0	7,545.0	126.2	13.2	-90.00	-2,893.5	920.5	4,343.8	4,204.4	139.37	31.168						



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 0-2-26 (EXISTING) - ENCANA WELL - SURVE													Offset Site Error: 0.0 ft			
Survey Program: 95-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	9.0	9.0	0.0	0.0	-168.89	-1,253.1	-246.1	1,277.1							
100.0	100.0	110.2	110.2	0.2	0.2	-168.87	-1,253.1	-246.5	1,277.1	1,276.7	0.32	3,970.414				
200.0	200.0	222.8	222.8	0.3	0.4	-168.80	-1,252.2	-248.0	1,276.6	1,275.9	0.70	1,832.455				
300.0	300.0	340.5	340.3	0.5	0.6	-168.56	-1,249.0	-252.9	1,274.8	1,273.7	1.10	1,162.619				
400.0	400.0	457.8	457.1	0.7	0.9	-168.09	-1,243.4	-262.1	1,271.6	1,270.1	1.53	832.871				
500.0	500.0	558.7	557.2	0.8	1.2	-167.55	-1,237.2	-273.1	1,267.9	1,265.9	1.95	651.051				
600.0	600.0	663.1	660.3	1.0	1.5	-166.83	-1,229.6	-287.8	1,263.9	1,261.5	2.41	524.634				
700.0	700.0	764.0	759.1	1.2	1.9	-165.92	-1,221.1	-306.2	1,259.9	1,257.0	2.89	435.383				
800.0	800.0	862.9	855.4	1.4	2.3	-164.90	-1,211.8	-326.9	1,256.0	1,252.6	3.39	370.886				
900.0	900.0	961.2	950.7	1.5	2.8	-163.83	-1,202.3	-348.6	1,252.5	1,248.6	3.88	322.778				
1,000.0	1,000.0	1,063.0	1,049.4	1.7	3.2	-162.68	-1,192.0	-371.7	1,249.3	1,244.9	4.38	284.920				
1,100.0	1,100.0	1,153.7	1,137.3	1.9	3.7	-161.66	-1,182.8	-392.1	1,246.4	1,241.6	4.84	257.442				
1,200.0	1,200.0	1,239.0	1,219.9	2.1	4.1	-108.49	-1,174.9	-411.8	1,245.3	1,239.2	6.12	203.410				
1,207.3	1,207.3	1,241.0	1,221.9	2.1	4.1	-108.47	-1,174.7	-412.2	1,245.3	1,239.1	6.14	202.670				
1,300.0	1,300.0	1,328.8	1,306.9	2.2	4.5	-107.56	-1,167.2	-432.8	1,245.9	1,239.2	6.72	185.319				
1,400.0	1,399.9	1,446.5	1,420.9	2.4	5.0	-106.42	-1,156.2	-460.0	1,246.6	1,239.1	7.47	166.980				
1,500.0	1,499.7	1,541.0	1,512.4	2.6	5.5	-105.59	-1,147.1	-481.5	1,247.8	1,239.7	8.10	154.086				
1,600.0	1,599.4	1,644.9	1,612.9	2.8	6.0	-104.72	-1,136.5	-505.6	1,249.3	1,240.4	8.80	141.929				
1,619.7	1,619.0	1,661.8	1,629.3	2.8	6.1	-104.57	-1,134.7	-509.6	1,249.6	1,240.7	8.93	139.991				
1,700.0	1,699.0	1,734.7	1,699.5	3.0	6.5	-103.97	-1,127.3	-527.5	1,251.8	1,242.3	9.46	132.334				
1,800.0	1,798.5	1,834.1	1,795.2	3.2	7.0	-103.12	-1,116.9	-552.6	1,254.7	1,244.5	10.18	123.255				
1,900.0	1,898.1	1,933.4	1,890.7	3.4	7.5	-102.27	-1,106.4	-577.8	1,257.9	1,247.0	10.89	115.473				
2,000.0	1,997.7	2,037.7	1,991.4	3.6	8.0	-101.45	-1,095.8	-602.7	1,261.1	1,249.4	11.61	108.615				
2,100.0	2,097.3	2,127.9	2,078.6	3.9	8.4	-100.77	-1,086.8	-623.6	1,264.3	1,252.0	12.24	103.255				
2,200.0	2,196.9	2,216.8	2,164.9	4.1	8.8	-100.16	-1,079.4	-643.7	1,268.9	1,256.0	12.87	98.579				
2,300.0	2,296.5	2,319.0	2,263.9	4.3	9.3	-99.43	-1,070.4	-667.5	1,273.6	1,260.1	13.56	93.907				
2,400.0	2,396.1	2,418.5	2,360.5	4.5	9.8	-98.76	-1,062.0	-689.8	1,278.5	1,264.2	14.23	89.816				
2,500.0	2,495.7	2,527.3	2,466.0	4.7	10.3	-98.01	-1,052.4	-714.5	1,283.2	1,268.2	14.95	85.837				
2,600.0	2,595.3	2,610.3	2,546.5	5.0	10.7	-97.44	-1,044.8	-733.2	1,287.9	1,272.4	15.56	82.796				
2,700.0	2,694.8	2,704.6	2,637.9	5.2	11.1	-96.80	-1,037.3	-755.4	1,294.2	1,278.0	16.19	79.920				
2,800.0	2,794.4	2,803.0	2,733.5	5.4	11.6	-96.19	-1,030.0	-777.1	1,300.3	1,283.5	16.84	77.214				
2,900.0	2,894.0	2,926.0	2,853.0	5.6	12.1	-95.39	-1,019.5	-804.7	1,306.0	1,288.4	17.62	74.109				
3,000.0	2,993.6	3,020.0	2,944.2	5.9	12.6	-94.78	-1,010.7	-825.5	1,310.9	1,292.7	18.24	71.856				
3,100.0	3,093.2	3,120.3	3,041.5	6.1	13.1	-94.12	-1,001.4	-848.3	1,316.4	1,297.4	18.94	69.500				
3,200.0	3,192.8	3,208.0	3,126.1	6.3	13.5	-93.48	-992.6	-869.4	1,322.2	1,302.6	19.58	67.539				
3,300.0	3,292.4	3,310.7	3,225.2	6.5	14.0	-92.72	-982.3	-894.6	1,328.5	1,308.2	20.29	65.484				
3,400.0	3,392.0	3,416.8	3,327.5	6.8	14.5	-91.96	-971.3	-920.0	1,334.3	1,313.4	20.99	63.558				
3,500.0	3,491.6	3,509.6	3,417.4	7.0	15.0	-91.33	-962.2	-941.7	1,340.5	1,318.9	21.63	61.984				
3,600.0	3,591.1	3,608.0	3,512.7	7.2	15.4	-90.70	-953.2	-964.2	1,347.1	1,324.8	22.27	60.484				
3,700.0	3,690.7	3,713.9	3,615.4	7.5	15.9	-90.05	-943.6	-987.8	1,353.5	1,330.6	22.94	59.009				
3,800.0	3,790.3	3,812.3	3,711.2	7.7	16.4	-89.48	-934.7	-1,009.2	1,359.8	1,336.2	23.57	57.699				
3,900.0	3,889.9	3,907.3	3,803.5	7.9	16.8	-88.94	-926.5	-1,029.7	1,366.5	1,342.3	24.16	56.568				
4,000.0	3,989.5	4,045.7	3,939.1	8.2	17.3	-88.35	-916.3	-1,055.8	1,372.6	1,347.8	24.86	55.213				
4,100.0	4,089.1	4,135.5	4,027.4	8.4	17.6	-88.03	-909.5	-1,070.5	1,377.0	1,351.6	25.37	54.278				
4,200.0	4,188.7	4,252.7	4,143.2	8.6	18.0	-87.77	-902.8	-1,086.9	1,381.3	1,355.4	25.90	53.326				
4,300.0	4,288.3	4,359.7	4,249.6	8.9	18.2	-87.72	-898.9	-1,097.8	1,384.7	1,358.3	26.35	52.546				
4,400.0	4,387.9	4,476.2	4,365.8	9.1	18.4	-87.84	-896.6	-1,105.8	1,387.3	1,360.5	26.78	51.813				
4,500.0	4,487.4	4,596.7	4,486.2	9.3	18.5	-88.13	-895.5	-1,110.0	1,388.4	1,361.3	27.17	51.108				
4,600.0	4,587.0	4,691.6	4,581.1	9.6	18.6	-88.42	-895.1	-1,111.6	1,388.9	1,361.4	27.52	50.477				
4,700.0	4,686.6	4,780.8	4,670.2	9.8	18.7	-88.70	-895.3	-1,113.4	1,390.2	1,362.3	27.87	49.887				
4,800.0	4,786.2	4,868.3	4,757.8	10.0	18.8	-88.98	-896.0	-1,115.6	1,392.2	1,364.0	28.20	49.374				
4,900.0	4,885.8	4,962.6	4,852.0	10.3	18.9	-89.32	-898.1	-1,117.6	1,395.1	1,366.5	28.54	48.885				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 0-2-26 (EXISTING) - ENCANA WELL - SURVE													Offset Site Error:	0.0 ft
Survey Program: 95-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	4,985.4	5,061.6	4,951.0	10.5	19.0	-89.67	-900.2	-1,119.8	1,398.1	1,369.2	28.89	48.402		
5,100.0	5,085.0	5,200.2	5,089.5	10.7	19.1	-90.15	-901.8	-1,121.9	1,400.0	1,370.7	29.29	47.801		
5,200.0	5,184.6	5,319.7	5,208.9	11.0	19.2	-90.55	-900.4	-1,122.3	1,399.2	1,369.6	29.67	47.161		
5,300.0	5,284.2	5,415.8	5,305.1	11.2	19.3	-90.86	-899.0	-1,122.6	1,398.3	1,368.3	30.02	46.577		
5,400.0	5,383.7	5,511.9	5,401.2	11.4	19.4	-91.18	-897.8	-1,123.0	1,397.8	1,367.4	30.37	46.018		
5,500.0	5,483.3	5,611.0	5,500.3	11.7	19.5	-91.50	-896.7	-1,123.5	1,397.4	1,366.7	30.73	45.472		
5,600.0	5,582.9	5,711.5	5,600.7	11.9	19.6	-91.83	-895.6	-1,124.0	1,397.1	1,366.0	31.09	44.936		
5,700.0	5,682.5	5,809.7	5,698.9	12.1	19.7	-92.15	-894.5	-1,124.5	1,396.8	1,365.4	31.45	44.417		
5,769.4	5,751.6	5,876.6	5,765.9	12.3	19.8	-92.37	-893.9	-1,124.9	1,396.7	1,365.0	31.69	44.070		
5,800.0	5,782.1	5,906.0	5,795.2	12.4	19.8	-92.47	-893.6	-1,125.1	1,396.8	1,365.0	31.80	43.921		
5,900.0	5,881.7	6,002.7	5,892.0	12.6	19.9	-92.79	-892.9	-1,125.8	1,397.0	1,364.8	32.16	43.443		
6,000.0	5,981.3	6,099.4	5,988.7	12.8	20.0	-93.10	-892.3	-1,126.7	1,397.5	1,364.9	32.51	42.981		
6,100.0	6,080.9	6,194.2	6,083.4	13.1	20.1	-93.40	-891.8	-1,127.9	1,398.3	1,365.4	32.87	42.538		
6,200.0	6,180.5	6,293.7	6,182.9	13.3	20.3	-93.71	-891.4	-1,129.3	1,399.3	1,366.1	33.23	42.106		
6,300.0	6,280.0	6,394.3	6,283.5	13.5	20.4	-94.03	-891.0	-1,130.7	1,400.4	1,366.8	33.60	41.681		
6,400.0	6,379.6	6,510.7	6,399.9	13.8	20.5	-94.41	-890.1	-1,131.7	1,400.9	1,366.9	33.98	41.228		
6,500.0	6,479.2	6,624.7	6,513.9	14.0	20.6	-94.77	-888.0	-1,132.0	1,400.2	1,365.8	34.36	40.752		
6,600.0	6,578.8	6,720.9	6,610.0	14.2	20.7	-95.08	-885.9	-1,131.8	1,399.0	1,364.3	34.71	40.309		
6,656.0	6,634.6	6,766.0	6,655.2	14.4	20.8	-95.25	-885.4	-1,131.6	1,398.8	1,363.9	34.89	40.095		
6,700.0	6,678.4	6,810.4	6,699.6	14.5	20.8	-95.42	-885.2	-1,131.3	1,398.8	1,363.8	35.04	39.922		
6,800.0	6,778.0	6,923.1	6,812.2	14.7	20.9	-95.83	-883.9	-1,130.6	1,398.4	1,363.0	35.41	39.496		
6,900.0	6,877.6	7,030.7	6,919.8	14.9	21.0	-96.20	-881.5	-1,129.9	1,397.2	1,361.4	35.77	39.059		
6,953.0	6,930.4	7,080.5	6,969.5	15.1	21.1	-96.37	-880.3	-1,129.7	1,396.4	1,360.5	35.96	38.836		
7,000.0	6,977.2	7,118.0	7,007.1	15.1	21.1	-37.79	-879.5	-1,129.6	1,394.4	1,358.4	36.05	38.680		
7,050.0	7,027.0	7,157.0	7,046.1	15.2	21.2	1.27	-878.9	-1,129.8	1,389.1	1,353.2	35.96	38.634		
7,100.0	7,076.2	7,201.7	7,090.8	15.2	21.2	14.51	-878.3	-1,130.2	1,380.5	1,344.8	35.68	38.691		
7,150.0	7,124.6	7,244.6	7,133.7	15.3	21.3	20.98	-877.9	-1,130.8	1,368.5	1,333.3	35.22	38.856		
7,200.0	7,171.8	7,286.7	7,175.8	15.2	21.3	25.25	-877.5	-1,131.5	1,353.3	1,318.7	34.60	39.117		
7,250.0	7,217.4	7,327.4	7,216.5	15.2	21.4	28.74	-877.2	-1,132.4	1,335.0	1,301.2	33.83	39.464		
7,300.0	7,261.1	7,370.1	7,259.1	15.2	21.5	32.06	-877.0	-1,133.4	1,313.7	1,280.8	32.95	39.871		
7,350.0	7,302.5	7,413.3	7,302.3	15.2	21.5	35.51	-876.8	-1,134.4	1,289.6	1,257.6	32.00	40.294		
7,400.0	7,341.3	7,452.5	7,341.5	15.1	21.6	39.23	-876.6	-1,135.1	1,262.8	1,231.8	31.05	40.676		
7,450.0	7,377.2	7,486.6	7,375.6	15.1	21.6	43.27	-876.5	-1,135.8	1,233.8	1,203.6	30.14	40.935		
7,500.0	7,410.0	7,517.7	7,406.7	15.1	21.7	47.76	-876.4	-1,136.4	1,202.8	1,173.4	29.37	40.959		
7,550.0	7,439.4	7,546.3	7,435.3	15.2	21.7	52.74	-876.3	-1,137.0	1,170.3	1,141.5	28.80	40.640		
7,600.0	7,465.2	7,572.1	7,461.1	15.2	21.7	58.18	-876.3	-1,137.5	1,136.6	1,108.1	28.48	39.909		
7,650.0	7,487.1	7,594.2	7,483.2	15.3	21.8	63.95	-876.3	-1,137.9	1,102.1	1,073.7	28.41	38.787		
7,700.0	7,505.1	7,612.4	7,501.4	15.5	21.8	69.84	-876.4	-1,138.1	1,067.2	1,038.7	28.55	37.379		
7,750.0	7,518.9	7,626.5	7,515.5	15.7	21.8	75.64	-876.4	-1,138.3	1,032.5	1,003.7	28.81	35.833		
7,800.0	7,528.5	7,636.7	7,525.6	15.9	21.8	81.11	-876.5	-1,138.5	998.3	969.2	29.13	34.275		
7,850.0	7,533.9	7,642.4	7,531.4	16.2	21.8	86.01	-876.5	-1,138.5	965.2	935.7	29.44	32.779		
7,886.2	7,535.0	7,643.7	7,532.7	16.4	21.8	89.12	-876.5	-1,138.6	942.1	912.4	29.67	31.748		
7,900.0	7,535.0	7,643.8	7,532.8	16.5	21.8	89.12	-876.5	-1,138.6	933.5	903.7	29.78	31.350		
8,000.0	7,535.0	7,644.1	7,533.1	17.2	21.8	89.15	-876.5	-1,138.6	875.3	844.7	30.61	28.592		
8,100.0	7,535.0	7,644.5	7,533.4	18.1	21.8	89.18	-876.5	-1,138.6	825.3	793.7	31.60	26.117		
8,200.0	7,535.0	7,644.8	7,533.8	19.1	21.8	89.20	-876.5	-1,138.6	784.8	752.1	32.70	23.997		
8,300.0	7,535.0	7,645.2	7,534.1	20.2	21.8	89.23	-876.5	-1,138.6	755.5	721.5	33.91	22.280		
8,400.0	7,535.0	7,645.5	7,534.5	21.4	21.8	89.26	-876.5	-1,138.6	738.6	703.4	35.19	20.988		
8,475.8	7,535.0	7,645.8	7,534.8	22.4	21.8	89.28	-876.5	-1,138.6	734.7	698.5	36.22	20.286 CC, ES		
8,500.0	7,535.0	7,645.8	7,534.8	22.7	21.8	89.29	-876.5	-1,138.6	735.1	698.6	36.54	20.115		
8,600.0	7,535.0	7,646.2	7,535.2	24.0	21.8	89.31	-876.5	-1,138.6	745.1	707.2	37.95	19.633		
8,700.0	7,535.0	7,646.5	7,535.5	25.4	21.8	89.34	-876.5	-1,138.6	768.1	728.7	39.40	19.494 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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 0-2-26 (EXISTING) - ENCANA WELL - SURVE													Offset Site Error: 0.0 ft			
Survey Program: 95-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			
8,800.0	7,535.0	7,646.9	7,535.9	26.9	21.8	89.37	-876.5	-1,138.6	803.0	762.1	40.89	19.637				
8,900.0	7,535.0	7,647.2	7,536.2	28.3	21.8	89.39	-876.5	-1,138.6	848.4	805.9	42.42	20.001				
9,000.0	7,535.0	7,647.6	7,536.6	29.8	21.8	89.42	-876.5	-1,138.6	902.5	858.6	43.96	20.528				
9,100.0	7,535.0	7,647.9	7,536.9	31.3	21.8	89.45	-876.5	-1,138.6	964.0	918.5	45.54	21.171				
9,200.0	7,535.0	7,648.3	7,537.3	32.9	21.8	89.47	-876.5	-1,138.6	1,031.6	984.5	47.13	21.891				
9,300.0	7,535.0	7,648.6	7,537.6	34.4	21.8	89.50	-876.5	-1,138.6	1,104.1	1,055.4	48.73	22.657				
9,400.0	7,535.0	7,649.0	7,537.9	36.0	21.8	89.53	-876.5	-1,138.6	1,180.6	1,130.3	50.35	23.447				
9,500.0	7,535.0	7,649.3	7,538.3	37.6	21.8	89.55	-876.5	-1,138.6	1,260.4	1,208.5	51.99	24.246				
9,600.0	7,535.0	7,649.6	7,538.6	39.2	21.8	89.58	-876.5	-1,138.6	1,343.0	1,289.3	53.63	25.041				
9,700.0	7,535.0	7,650.0	7,539.0	40.9	21.8	89.61	-876.5	-1,138.6	1,427.7	1,372.4	55.28	25.826				
9,800.0	7,535.0	7,650.3	7,539.3	42.5	21.8	89.63	-876.5	-1,138.6	1,514.3	1,457.4	56.94	26.593				
9,900.0	7,535.0	7,650.7	7,539.7	44.1	21.8	89.66	-876.5	-1,138.6	1,602.5	1,543.9	58.61	27.340				
10,000.0	7,535.0	7,651.0	7,540.0	45.8	21.8	89.69	-876.5	-1,138.7	1,692.0	1,631.7	60.29	28.065				
10,100.0	7,535.0	7,651.4	7,540.3	47.4	21.8	89.72	-876.5	-1,138.7	1,782.6	1,720.6	61.97	28.766				
10,200.0	7,535.0	7,651.7	7,540.7	49.1	21.8	89.74	-876.5	-1,138.7	1,874.2	1,810.5	63.66	29.442				
10,300.0	7,535.0	7,652.0	7,541.0	50.8	21.8	89.77	-876.5	-1,138.7	1,966.6	1,901.2	65.35	30.094				
10,400.0	7,535.0	7,652.4	7,541.4	52.5	21.8	89.80	-876.5	-1,138.7	2,059.7	1,992.6	67.04	30.721				
10,500.0	7,535.0	7,652.7	7,541.7	54.1	21.8	89.82	-876.5	-1,138.7	2,153.4	2,084.6	68.74	31.325				
10,600.0	7,535.0	7,653.1	7,542.1	55.8	21.8	89.85	-876.5	-1,138.7	2,247.6	2,177.2	70.44	31.906				
10,700.0	7,535.0	7,653.4	7,542.4	57.5	21.8	89.88	-876.5	-1,138.7	2,342.4	2,270.2	72.15	32.465				
10,800.0	7,535.0	7,653.8	7,542.7	59.2	21.8	89.90	-876.5	-1,138.7	2,437.5	2,363.7	73.86	33.002				
10,900.0	7,535.0	7,654.1	7,543.1	60.9	21.8	89.93	-876.5	-1,138.7	2,533.0	2,457.5	75.57	33.519				
11,000.0	7,535.0	7,654.4	7,543.4	62.6	21.8	89.95	-876.5	-1,138.7	2,628.9	2,551.6	77.28	34.016				
11,100.0	7,535.0	7,654.8	7,543.8	64.3	21.8	89.98	-876.5	-1,138.7	2,725.1	2,646.1	79.00	34.494				
11,200.0	7,535.0	7,655.1	7,544.1	66.0	21.8	90.01	-876.5	-1,138.7	2,821.5	2,740.8	80.72	34.954				
11,300.0	7,535.0	7,655.5	7,544.4	67.7	21.8	90.03	-876.5	-1,138.7	2,918.2	2,835.7	82.44	35.398				
11,400.0	7,535.0	7,655.8	7,544.8	69.4	21.8	90.06	-876.5	-1,138.7	3,015.0	2,930.9	84.16	35.825				
11,496.2	7,535.0	7,656.1	7,545.1	71.1	21.8	90.09	-876.5	-1,138.7	3,108.4	3,022.6	85.82	36.221				
11,500.0	7,535.0	7,656.1	7,545.1	71.2	21.8	90.09	-876.5	-1,138.7	3,112.1	3,026.2	85.88	36.236				
11,600.0	7,535.0	7,656.5	7,545.5	72.9	21.8	90.11	-876.5	-1,138.7	3,209.4	3,121.8	87.61	36.633				
11,700.0	7,535.0	7,656.8	7,545.8	74.6	21.8	90.14	-876.5	-1,138.7	3,306.8	3,217.5	89.34	37.015				
11,800.0	7,535.0	7,657.1	7,546.1	76.3	21.8	90.17	-876.5	-1,138.7	3,404.4	3,313.3	91.06	37.385				
11,900.0	7,535.0	7,657.5	7,546.5	78.0	21.8	90.19	-876.5	-1,138.7	3,502.1	3,409.3	92.79	37.741				
12,000.0	7,535.0	7,657.8	7,546.8	79.7	21.8	90.22	-876.5	-1,138.7	3,599.9	3,505.4	94.52	38.086				
12,100.0	7,535.0	7,658.2	7,547.1	81.5	21.8	90.25	-876.5	-1,138.7	3,697.9	3,601.6	96.25	38.418				
12,200.0	7,535.0	7,658.5	7,547.5	83.2	21.8	90.27	-876.5	-1,138.7	3,795.9	3,697.9	97.98	38.740				
12,296.2	7,535.0	7,658.8	7,547.8	84.9	21.8	90.30	-876.5	-1,138.7	3,890.3	3,790.7	99.65	39.039				
12,300.0	7,535.0	7,658.8	7,547.8	84.9	21.8	90.30	-876.5	-1,138.7	3,894.1	3,794.4	99.72	39.051				
12,400.0	7,535.0	7,659.2	7,548.2	86.6	21.8	90.27	-876.5	-1,138.7	3,992.0	3,890.6	101.40	39.368				
12,492.9	7,535.0	7,659.6	7,548.6	88.3	21.8	90.26	-876.5	-1,138.8	4,082.3	3,979.4	102.89	39.677				
12,500.0	7,535.0	7,659.6	7,548.6	88.4	21.8	90.26	-876.5	-1,138.8	4,089.2	3,986.2	103.01	39.696				
12,600.0	7,535.0	7,660.0	7,549.0	90.1	21.8	90.29	-876.5	-1,138.8	4,186.2	4,081.5	104.75	39.964				
12,700.0	7,535.0	7,660.4	7,549.4	91.9	21.8	90.31	-876.5	-1,138.8	4,283.4	4,176.9	106.49	40.225				
12,800.0	7,535.0	7,660.9	7,549.8	93.6	21.8	90.33	-876.5	-1,138.8	4,380.7	4,272.4	108.22	40.478				
12,900.0	7,535.0	7,661.3	7,550.3	95.3	21.8	90.36	-876.5	-1,138.8	4,478.1	4,368.1	109.96	40.724				
13,000.0	7,535.0	7,661.7	7,550.7	97.1	21.8	90.38	-876.5	-1,138.8	4,575.6	4,463.9	111.70	40.964				
13,100.0	7,535.0	7,662.1	7,551.1	98.8	21.8	90.41	-876.5	-1,138.8	4,673.2	4,559.8	113.44	41.196				
13,200.0	7,535.0	7,662.5	7,551.5	100.5	21.8	90.43	-876.6	-1,138.8	4,770.9	4,655.8	115.18	41.423				
13,300.0	7,535.0	7,662.9	7,551.9	102.3	21.8	90.45	-876.6	-1,138.8	4,868.8	4,751.8	116.92	41.643				
13,400.0	7,535.0	7,663.3	7,552.3	104.0	21.8	90.48	-876.6	-1,138.8	4,966.7	4,848.0	118.66	41.857				
13,500.0	7,535.0	7,663.8	7,552.7	105.8	21.8	90.50	-876.6	-1,138.8	5,064.6	4,944.2	120.40	42.065				
13,600.0	7,535.0	7,664.2	7,553.2	107.5	21.8	90.52	-876.6	-1,138.8	5,162.7	5,040.6	122.14	42.269				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 0-2-26 (EXISTING) - ENCANA WELL - SURVE													Offset Site Error: 0.0 ft
Survey Program: 95-MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis		
13,700.0	7,535.0	7,664.6	7,553.6	109.3	21.8	90.55	-876.6	-1,138.8	5,260.8	5,137.0	123.88	42.466	
13,800.0	7,535.0	7,665.0	7,554.0	111.0	21.8	90.57	-876.6	-1,138.8	5,359.0	5,233.4	125.62	42.659	
13,900.0	7,535.0	7,665.4	7,554.4	112.7	21.8	90.59	-876.6	-1,138.8	5,457.3	5,329.9	127.37	42.847	
14,000.0	7,535.0	7,665.8	7,554.8	114.5	21.8	90.62	-876.6	-1,138.8	5,555.6	5,426.5	129.11	43.030	
14,100.0	7,535.0	7,666.2	7,555.2	116.2	21.8	90.64	-876.6	-1,138.8	5,654.0	5,523.2	130.85	43.209	
14,200.0	7,535.0	7,666.6	7,555.6	118.0	21.8	90.66	-876.6	-1,138.8	5,752.5	5,619.9	132.60	43.383	
14,300.0	7,535.0	7,667.0	7,556.0	119.7	21.8	90.69	-876.6	-1,138.8	5,851.0	5,716.6	134.34	43.553	
14,400.0	7,535.0	7,667.4	7,556.4	121.5	21.8	90.71	-876.6	-1,138.8	5,949.5	5,813.4	136.08	43.719	
14,500.0	7,535.0	7,667.9	7,556.8	123.2	21.8	90.73	-876.6	-1,138.8	6,048.1	5,910.3	137.83	43.881	
14,600.0	7,535.0	7,668.3	7,557.3	124.9	21.8	90.76	-876.6	-1,138.9	6,146.7	6,007.2	139.57	44.040	
14,672.4	7,535.0	7,668.6	7,557.5	126.2	21.8	90.77	-876.6	-1,138.9	6,218.2	6,077.3	140.84	44.152	
14,672.9	7,535.0	7,668.6	7,557.5	126.2	21.8	90.77	-876.6	-1,138.9	6,218.7	6,077.8	140.85	44.153	



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 0-4-26 (EXISTING) - ENCANA WELL - SURVE												Offset Site Error: 0.0 ft			
Survey Program: 92-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	-169.29	-1,256.8	-237.7	1,279.1						
100.0	100.0	92.0	92.0	0.2	0.1	-169.30	-1,257.9	-237.6	1,280.3	1,280.0	0.29	4,366.170			
200.0	200.0	176.8	176.8	0.3	0.3	-169.31	-1,260.0	-237.8	1,282.7	1,282.0	0.62	2,073.573			
300.0	300.0	281.5	281.4	0.5	0.5	-169.29	-1,262.3	-238.7	1,285.0	1,284.1	0.98	1,315.235			
400.0	400.0	372.9	372.8	0.7	0.6	-169.24	-1,264.4	-240.3	1,287.5	1,286.2	1.31	981.424			
500.0	500.0	453.0	452.8	0.8	0.8	-169.14	-1,266.8	-243.0	1,291.1	1,289.5	1.63	793.542			
600.0	600.0	535.8	535.4	1.0	1.0	-168.97	-1,270.1	-247.5	1,296.2	1,294.2	1.95	665.635			
700.0	700.0	615.2	614.4	1.2	1.2	-168.75	-1,274.2	-253.4	1,302.7	1,300.4	2.26	575.879			
800.0	800.0	689.0	687.9	1.4	1.3	-168.50	-1,279.1	-260.1	1,311.0	1,308.4	2.57	510.195			
900.0	900.0	762.5	760.6	1.5	1.6	-168.22	-1,285.2	-267.9	1,321.3	1,318.4	2.88	459.101			
1,000.0	1,000.0	837.0	834.2	1.7	1.8	-167.90	-1,292.6	-277.1	1,333.6	1,330.4	3.19	418.019			
1,100.0	1,100.0	915.0	910.9	1.9	2.1	-167.51	-1,301.4	-288.4	1,347.8	1,344.3	3.51	383.910			
1,200.0	1,200.0	974.3	968.8	2.1	2.3	-114.79	-1,309.1	-298.4	1,364.6	1,360.6	4.00	340.774			
1,300.0	1,300.0	1,050.6	1,042.8	2.2	2.7	-114.18	-1,320.3	-313.1	1,384.3	1,379.9	4.40	314.771			
1,400.0	1,399.9	1,151.2	1,140.2	2.4	3.1	-113.45	-1,335.1	-333.9	1,405.5	1,400.6	4.88	288.124			
1,500.0	1,499.7	1,229.6	1,215.9	2.6	3.5	-112.87	-1,346.5	-350.6	1,427.5	1,422.2	5.30	269.574			
1,600.0	1,599.4	1,307.9	1,291.3	2.8	3.9	-112.34	-1,359.4	-367.3	1,452.0	1,446.3	5.72	253.877			
1,619.7	1,619.0	1,326.1	1,308.8	2.8	4.0	-112.23	-1,362.5	-371.2	1,457.0	1,451.2	5.81	250.662			
1,700.0	1,699.0	1,396.2	1,376.1	3.0	4.3	-111.99	-1,374.3	-386.5	1,477.5	1,471.3	6.20	238.495			
1,800.0	1,798.5	1,482.3	1,458.5	3.2	4.8	-111.67	-1,389.2	-406.5	1,503.9	1,497.2	6.68	225.096			
1,900.0	1,898.1	1,572.1	1,544.4	3.4	5.3	-111.32	-1,404.8	-428.0	1,530.5	1,523.3	7.19	212.978			
2,000.0	1,997.7	1,645.0	1,613.7	3.6	5.7	-111.03	-1,418.2	-446.0	1,558.4	1,550.8	7.64	203.947			
2,100.0	2,097.3	1,739.0	1,702.9	3.9	6.2	-110.64	-1,436.1	-469.9	1,587.2	1,579.0	8.18	194.121			
2,200.0	2,196.9	1,810.8	1,770.8	4.1	6.7	-110.34	-1,449.9	-488.6	1,616.6	1,607.9	8.64	187.088			
2,300.0	2,296.5	1,907.7	1,862.3	4.3	7.3	-109.95	-1,469.4	-514.1	1,646.9	1,637.7	9.18	179.387			
2,400.0	2,396.1	2,021.8	1,970.3	4.5	7.9	-109.54	-1,491.8	-543.0	1,676.4	1,666.7	9.77	171.525			
2,500.0	2,495.7	2,118.8	2,062.4	4.7	8.5	-109.23	-1,510.5	-566.8	1,705.4	1,695.2	10.29	165.668			
2,600.0	2,595.3	2,226.3	2,164.9	5.0	9.1	-108.94	-1,531.0	-592.0	1,733.9	1,723.1	10.84	159.916			
2,700.0	2,694.8	2,308.6	2,243.3	5.2	9.6	-108.70	-1,546.8	-611.8	1,762.7	1,751.4	11.32	155.686			
2,800.0	2,794.4	2,421.4	2,350.8	5.4	10.2	-108.41	-1,568.1	-638.3	1,791.1	1,779.2	11.88	150.781			
2,900.0	2,894.0	2,513.2	2,438.4	5.6	10.7	-108.19	-1,585.6	-659.5	1,819.5	1,807.1	12.37	147.075			
3,000.0	2,993.6	2,613.3	2,534.1	5.9	11.3	-107.98	-1,604.5	-682.0	1,847.7	1,834.8	12.89	143.339			
3,100.0	3,093.2	2,710.2	2,626.4	6.1	11.8	-107.73	-1,622.5	-705.3	1,876.1	1,862.7	13.41	139.852			
3,200.0	3,192.8	2,850.6	2,760.7	6.3	12.6	-107.39	-1,647.1	-738.0	1,903.3	1,889.2	14.04	135.533			
3,300.0	3,292.4	2,920.6	2,827.9	6.5	13.0	-107.26	-1,659.1	-753.2	1,929.7	1,915.3	14.47	133.346			
3,400.0	3,392.0	2,991.1	2,895.3	6.8	13.3	-107.12	-1,672.3	-769.3	1,957.8	1,942.9	14.89	131.485			
3,500.0	3,491.6	3,089.6	2,989.5	7.0	13.9	-106.98	-1,691.8	-790.6	1,986.6	1,971.2	15.39	129.094			
3,600.0	3,591.1	3,190.0	3,085.4	7.2	14.5	-106.77	-1,710.1	-814.1	2,014.5	1,998.6	15.93	126.441			
3,700.0	3,690.7	3,292.9	3,183.0	7.5	15.1	-106.47	-1,728.3	-840.9	2,043.0	2,026.5	16.47	124.036			
3,800.0	3,790.3	3,373.6	3,260.1	7.7	15.5	-106.30	-1,742.6	-860.2	2,070.9	2,053.9	16.94	122.260			
3,900.0	3,889.9	3,433.6	3,317.0	7.9	15.9	-106.16	-1,754.1	-875.3	2,100.4	2,083.1	17.35	121.082			
4,000.0	3,989.5	3,549.3	3,426.6	8.2	16.6	-105.90	-1,776.8	-904.3	2,130.4	2,112.5	17.90	118.988			
4,100.0	4,089.1	3,671.1	3,542.9	8.4	17.2	-105.70	-1,799.8	-932.5	2,159.0	2,140.5	18.48	116.799			
4,200.0	4,188.7	3,785.7	3,652.3	8.6	17.9	-105.47	-1,820.2	-960.0	2,186.9	2,167.9	19.02	114.977			
4,300.0	4,288.3	3,903.1	3,765.1	8.9	18.5	-105.32	-1,841.0	-985.2	2,213.8	2,194.2	19.56	113.150			
4,400.0	4,387.9	4,003.5	3,861.4	9.1	19.0	-105.17	-1,857.9	-1,007.7	2,240.3	2,220.2	20.07	111.612			
4,500.0	4,487.4	4,193.8	4,045.4	9.3	19.9	-105.00	-1,888.4	-1,044.9	2,265.2	2,244.4	20.77	109.087			
4,600.0	4,587.0	4,389.6	4,236.9	9.6	20.7	-104.92	-1,913.7	-1,076.9	2,286.0	2,264.6	21.45	106.584			
4,700.0	4,686.6	4,530.0	4,375.2	9.8	21.1	-104.91	-1,927.8	-1,096.4	2,302.9	2,280.9	21.99	104.733			
4,800.0	4,786.2	4,676.3	4,519.8	10.0	21.8	-105.61	-1,950.1	-1,117.6	2,311.6	2,288.6	22.96	100.683			
4,900.0	4,885.8	5,075.3	4,918.8	10.3	21.8	-105.87	-1,949.7	-1,115.6	2,312.8	2,289.5	23.34	99.104			
5,000.0	4,985.4	5,168.2	5,011.7	10.5	21.9	-106.10	-1,949.5	-1,114.1	2,314.6	2,290.9	23.71	97.630			

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 0-4-26 (EXISTING) - ENCANA WELL - SURVE										Offset Site Error:		0.0 ft	
Survey Program: 92-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	5,085.0	5,269.0	5,112.5	10.7	21.9	-106.35	-1,949.3	-1,112.6	2,316.4	2,292.3	24.09	96.151			
5,200.0	5,184.6	5,377.1	5,220.5	11.0	22.0	-106.61	-1,948.8	-1,111.2	2,318.1	2,293.6	24.49	94.659			
5,300.0	5,284.2	5,494.1	5,337.6	11.2	22.0	-106.88	-1,947.4	-1,109.9	2,319.2	2,294.3	24.90	93.126			
5,400.0	5,383.7	5,597.9	5,441.4	11.4	22.1	-107.11	-1,945.6	-1,108.6	2,319.8	2,294.5	25.30	91.694			
5,500.0	5,483.3	5,674.0	5,517.4	11.7	22.1	-107.28	-1,944.5	-1,108.0	2,320.8	2,295.1	25.65	90.466			
5,600.0	5,582.9	5,756.6	5,600.0	11.9	22.2	-107.45	-1,943.7	-1,108.1	2,322.7	2,296.7	26.02	89.259			
5,700.0	5,682.5	5,840.1	5,683.6	12.1	22.3	-107.61	-1,943.6	-1,108.8	2,325.6	2,299.2	26.39	88.107			
5,800.0	5,782.1	5,928.4	5,771.8	12.4	22.4	-107.77	-1,943.8	-1,109.9	2,329.0	2,302.2	26.78	86.976			
5,900.0	5,881.7	6,018.5	5,861.9	12.6	22.5	-107.93	-1,944.2	-1,111.5	2,332.8	2,305.7	27.16	85.882			
6,000.0	5,981.3	6,115.7	5,959.1	12.8	22.6	-108.10	-1,945.0	-1,113.3	2,337.0	2,309.5	27.56	84.796			
6,100.0	6,080.9	6,211.9	6,055.3	13.1	22.7	-108.27	-1,945.9	-1,115.0	2,341.3	2,313.3	27.96	83.749			
6,200.0	6,180.5	6,318.0	6,161.3	13.3	22.8	-108.47	-1,946.9	-1,116.5	2,345.6	2,317.2	28.36	82.710			
6,300.0	6,280.0	6,430.1	6,273.4	13.5	22.9	-108.70	-1,947.9	-1,117.1	2,349.5	2,320.7	28.77	81.660			
6,400.0	6,379.6	6,522.4	6,365.7	13.8	23.0	-108.89	-1,948.6	-1,117.5	2,353.3	2,324.1	29.15	80.722			
6,500.0	6,479.2	6,618.1	6,461.4	14.0	23.1	-109.08	-1,949.5	-1,118.1	2,357.3	2,327.8	29.54	79.804			
6,600.0	6,578.8	6,725.1	6,568.5	14.2	23.2	-109.30	-1,950.5	-1,118.5	2,361.3	2,331.4	29.94	78.862			
6,700.0	6,678.4	6,824.5	6,667.9	14.5	23.3	-109.50	-1,951.2	-1,119.2	2,365.2	2,334.8	30.34	77.957			
6,800.0	6,778.0	6,920.5	6,763.8	14.7	23.4	-109.67	-1,951.8	-1,120.2	2,369.2	2,338.5	30.73	77.091			
6,900.0	6,877.6	7,020.0	6,863.3	14.9	23.5	-109.85	-1,952.4	-1,121.6	2,373.3	2,342.2	31.13	76.230			
6,953.0	6,930.4	7,074.4	6,917.7	15.1	23.6	-109.95	-1,952.7	-1,122.6	2,375.5	2,344.1	31.35	75.772			
7,000.0	6,977.2	7,124.1	6,967.4	15.1	23.6	-51.46	-1,952.9	-1,123.5	2,375.6	2,343.9	31.62	75.129			
7,050.0	7,027.0	7,177.4	7,020.6	15.2	23.7	-12.57	-1,952.9	-1,124.7	2,371.6	2,339.9	31.68	74.867			
7,100.0	7,076.2	7,227.0	7,070.3	15.2	23.8	0.39	-1,952.9	-1,125.9	2,363.5	2,332.0	31.49	75.050			
7,150.0	7,124.6	7,274.0	7,117.2	15.3	23.8	6.46	-1,952.9	-1,126.9	2,351.4	2,320.3	31.07	75.669			
7,200.0	7,171.8	7,320.5	7,163.7	15.2	23.9	10.21	-1,953.0	-1,127.8	2,335.4	2,304.9	30.43	76.734			
7,250.0	7,217.4	7,363.9	7,207.1	15.2	23.9	13.03	-1,953.1	-1,128.6	2,315.6	2,286.0	29.59	78.259			
7,300.0	7,261.1	7,414.5	7,257.7	15.2	24.0	15.54	-1,953.2	-1,129.4	2,292.2	2,263.6	28.58	80.210			
7,350.0	7,302.5	7,463.3	7,306.5	15.2	24.0	18.04	-1,953.1	-1,130.5	2,265.2	2,237.8	27.42	82.602			
7,400.0	7,341.3	7,507.7	7,350.9	15.1	24.1	20.72	-1,952.7	-1,131.7	2,234.9	2,208.7	26.19	85.325			
7,450.0	7,377.2	7,548.4	7,391.6	15.1	24.1	23.77	-1,952.2	-1,133.1	2,201.5	2,176.5	24.98	88.133			
7,500.0	7,410.0	7,580.9	7,424.0	15.1	24.2	27.30	-1,951.8	-1,134.3	2,165.4	2,141.5	23.93	90.480			
7,550.0	7,439.4	7,608.7	7,451.8	15.2	24.2	31.50	-1,951.4	-1,135.2	2,127.0	2,103.7	23.27	91.397			
7,600.0	7,465.2	7,633.2	7,476.3	15.2	24.2	36.64	-1,951.1	-1,135.8	2,086.5	2,063.2	23.26	89.711			
7,650.0	7,487.1	7,652.0	7,495.1	15.3	24.3	42.90	-1,951.0	-1,136.3	2,044.3	2,020.2	24.09	84.868			
7,700.0	7,505.1	7,670.8	7,513.9	15.5	24.3	50.70	-1,950.8	-1,136.7	2,000.7	1,974.9	25.83	77.448			
7,750.0	7,518.9	7,683.6	7,526.7	15.7	24.3	59.96	-1,950.8	-1,136.9	1,956.1	1,927.9	28.16	69.476			
7,800.0	7,528.5	7,692.5	7,535.6	15.9	24.3	70.52	-1,950.7	-1,137.1	1,910.8	1,880.4	30.46	62.740			
7,850.0	7,533.9	7,697.3	7,540.4	16.2	24.3	81.73	-1,950.7	-1,137.2	1,865.3	1,833.3	32.01	58.275			
7,886.2	7,535.0	7,698.1	7,541.2	16.4	24.3	89.72	-1,950.7	-1,137.2	1,832.4	1,800.0	32.39	56.572			
7,900.0	7,535.0	7,698.1	7,541.1	16.5	24.3	89.71	-1,950.7	-1,137.2	1,819.9	1,787.4	32.49	56.007			
8,000.0	7,535.0	7,697.4	7,540.5	17.2	24.3	89.67	-1,950.7	-1,137.2	1,729.7	1,696.4	33.33	51.893			
8,100.0	7,535.0	7,696.8	7,539.9	18.1	24.3	89.62	-1,950.7	-1,137.2	1,640.8	1,606.5	34.32	47.812			
8,200.0	7,535.0	7,696.2	7,539.2	19.1	24.3	89.57	-1,950.7	-1,137.2	1,553.1	1,517.7	35.42	43.847			
8,300.0	7,535.0	7,695.5	7,538.6	20.2	24.3	89.52	-1,950.7	-1,137.2	1,467.1	1,430.5	36.63	40.056			
8,400.0	7,535.0	7,694.9	7,538.0	21.4	24.3	89.47	-1,950.7	-1,137.1	1,382.9	1,345.0	37.91	36.477			
8,500.0	7,535.0	7,694.2	7,537.3	22.7	24.3	89.43	-1,950.7	-1,137.1	1,301.0	1,261.7	39.26	33.135			
8,600.0	7,535.0	7,693.5	7,536.6	24.0	24.3	89.38	-1,950.7	-1,137.1	1,221.7	1,181.1	40.67	30.040			
8,700.0	7,535.0	7,692.9	7,536.0	25.4	24.3	89.33	-1,950.7	-1,137.1	1,145.8	1,103.6	42.12	27.200			
8,800.0	7,535.0	7,692.2	7,535.3	26.9	24.3	89.28	-1,950.7	-1,137.1	1,073.7	1,030.1	43.61	24.619			
8,900.0	7,535.0	7,691.5	7,534.6	28.3	24.3	89.23	-1,950.7	-1,137.1	1,006.5	961.3	45.13	22.299			
9,000.0	7,535.0	7,690.8	7,533.9	29.8	24.3	89.17	-1,950.7	-1,137.1	945.0	898.3	46.68	20.244			
9,100.0	7,535.0	7,690.1	7,533.2	31.3	24.3	89.12	-1,950.7	-1,137.1	890.6	842.3	48.25	18.457			

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 0-4-26 (EXISTING) - ENCANA WELL - SURVE													Offset Site Error:	0.0 ft
Survey Program: 92-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
9,200.0	7,535.0	7,689.4	7,532.5	32.9	24.3	89.07	-1,950.7	-1,137.0	844.5	794.7	49.84	16.945		
9,300.0	7,535.0	7,688.7	7,531.8	34.4	24.3	89.02	-1,950.7	-1,137.0	808.3	756.9	51.45	15.712		
9,400.0	7,535.0	7,688.0	7,531.1	36.0	24.3	88.96	-1,950.7	-1,137.0	783.2	730.2	53.07	14.759		
9,500.0	7,535.0	7,687.3	7,530.4	37.6	24.3	88.91	-1,950.7	-1,137.0	770.4	715.7	54.70	14.085		
9,549.5	7,535.0	7,686.9	7,530.0	38.4	24.3	88.88	-1,950.7	-1,137.0	768.8	713.3	55.51	13.850 CC, ES		
9,600.0	7,535.0	7,686.6	7,529.7	39.2	24.3	88.86	-1,950.7	-1,137.0	770.5	714.1	56.34	13.675		
9,700.0	7,535.0	7,685.8	7,528.9	40.9	24.3	88.80	-1,950.7	-1,137.0	783.4	725.4	57.99	13.509 SF		
9,800.0	7,535.0	7,685.1	7,528.2	42.5	24.3	88.75	-1,950.7	-1,137.0	808.6	748.9	59.65	13.555		
9,900.0	7,535.0	7,684.3	7,527.4	44.1	24.3	88.69	-1,950.7	-1,136.9	844.9	783.6	61.32	13.779		
10,000.0	7,535.0	7,683.6	7,526.7	45.8	24.3	88.64	-1,950.8	-1,136.9	891.1	828.1	62.99	14.146		
10,100.0	7,535.0	7,682.8	7,525.9	47.4	24.3	88.58	-1,950.8	-1,136.9	945.6	880.9	64.67	14.621		
10,200.0	7,535.0	7,682.1	7,525.2	49.1	24.3	88.52	-1,950.8	-1,136.9	1,007.1	940.7	66.36	15.177		
10,300.0	7,535.0	7,681.3	7,524.4	50.8	24.3	88.46	-1,950.8	-1,136.9	1,074.4	1,006.3	68.04	15.789		
10,400.0	7,535.0	7,680.5	7,523.6	52.5	24.3	88.40	-1,950.8	-1,136.9	1,146.4	1,076.7	69.74	16.439		
10,500.0	7,535.0	7,679.7	7,522.8	54.1	24.3	88.35	-1,950.8	-1,136.8	1,222.5	1,151.0	71.43	17.113		
10,600.0	7,535.0	7,678.9	7,522.0	55.8	24.3	88.29	-1,950.8	-1,136.8	1,301.7	1,228.6	73.13	17.799		
10,700.0	7,535.0	7,678.1	7,521.2	57.5	24.3	88.23	-1,950.8	-1,136.8	1,383.7	1,308.8	74.84	18.489		
10,800.0	7,535.0	7,677.3	7,520.4	59.2	24.3	88.16	-1,950.8	-1,136.8	1,467.9	1,391.3	76.54	19.177		
10,900.0	7,535.0	7,676.5	7,519.6	60.9	24.3	88.10	-1,950.8	-1,136.8	1,553.9	1,475.7	78.25	19.859		
11,000.0	7,535.0	7,675.6	7,518.7	62.6	24.3	88.04	-1,950.8	-1,136.8	1,641.6	1,561.6	79.96	20.530		
11,100.0	7,535.0	7,674.8	7,517.9	64.3	24.3	87.98	-1,950.8	-1,136.7	1,730.6	1,648.9	81.67	21.189		
11,200.0	7,535.0	7,673.9	7,517.0	66.0	24.3	87.92	-1,950.8	-1,136.7	1,820.7	1,737.3	83.39	21.835		
11,300.0	7,535.0	7,673.1	7,516.2	67.7	24.3	87.85	-1,950.8	-1,136.7	1,911.8	1,826.7	85.10	22.465		
11,400.0	7,535.0	7,672.2	7,515.3	69.4	24.3	87.79	-1,950.8	-1,136.7	2,003.8	1,917.0	86.82	23.080		
11,496.2	7,535.0	7,671.4	7,514.5	71.1	24.3	87.72	-1,950.8	-1,136.7	2,092.9	2,004.4	88.47	23.657		
11,500.0	7,535.0	7,671.3	7,514.4	71.2	24.3	87.72	-1,950.8	-1,136.7	2,096.5	2,007.9	88.54	23.679		
11,600.0	7,535.0	7,670.4	7,513.5	72.9	24.3	87.66	-1,950.8	-1,136.7	2,189.8	2,099.5	90.26	24.262		
11,700.0	7,535.0	7,669.6	7,512.7	74.6	24.3	87.59	-1,950.8	-1,136.6	2,283.7	2,191.7	91.98	24.829		
11,800.0	7,535.0	7,668.7	7,511.7	76.3	24.3	87.52	-1,950.9	-1,136.6	2,378.1	2,284.4	93.70	25.380		
11,900.0	7,535.0	7,667.7	7,510.8	78.0	24.3	87.45	-1,950.9	-1,136.6	2,472.9	2,377.5	95.42	25.916		
12,000.0	7,535.0	7,666.8	7,509.9	79.7	24.3	87.39	-1,950.9	-1,136.6	2,568.2	2,471.0	97.14	26.437		
12,100.0	7,535.0	7,665.9	7,509.0	81.5	24.3	87.32	-1,950.9	-1,136.6	2,663.8	2,564.9	98.87	26.942		
12,200.0	7,535.0	7,664.9	7,508.0	83.2	24.3	87.25	-1,950.9	-1,136.5	2,759.6	2,659.0	100.59	27.434		
12,296.2	7,535.0	7,664.0	7,507.1	84.9	24.3	87.18	-1,950.9	-1,136.5	2,852.1	2,749.9	102.25	27.893		
12,300.0	7,535.0	7,664.0	7,507.1	84.9	24.3	87.19	-1,950.9	-1,136.5	2,855.8	2,753.5	102.34	27.904		
12,400.0	7,535.0	7,663.1	7,506.2	86.6	24.3	87.44	-1,950.9	-1,136.5	2,951.7	2,847.1	104.67	28.199		
12,492.9	7,535.0	7,662.3	7,505.4	88.3	24.3	87.64	-1,950.9	-1,136.5	3,040.2	2,933.5	106.75	28.480		
12,500.0	7,535.0	7,662.2	7,505.3	88.4	24.3	87.64	-1,950.9	-1,136.5	3,046.9	2,940.0	106.87	28.510		
12,600.0	7,535.0	7,661.4	7,504.5	90.1	24.3	87.59	-1,950.9	-1,136.5	3,142.0	3,033.4	108.60	28.931		
12,700.0	7,535.0	7,660.6	7,503.7	91.9	24.3	87.54	-1,950.9	-1,136.5	3,237.3	3,127.0	110.33	29.341		
12,800.0	7,535.0	7,659.8	7,502.9	93.6	24.3	87.49	-1,950.9	-1,136.4	3,332.9	3,220.8	112.07	29.741		
12,900.0	7,535.0	7,658.9	7,502.0	95.3	24.3	87.44	-1,950.9	-1,136.4	3,428.8	3,315.0	113.80	30.130		
13,000.0	7,535.0	7,658.1	7,501.2	97.1	24.3	87.39	-1,950.9	-1,136.4	3,524.9	3,409.3	115.53	30.510		
13,100.0	7,535.0	7,657.2	7,500.3	98.8	24.3	87.34	-1,950.9	-1,136.4	3,621.2	3,503.9	117.26	30.881		
13,200.0	7,535.0	7,656.4	7,499.5	100.5	24.3	87.29	-1,950.9	-1,136.4	3,717.7	3,598.7	119.00	31.242		
13,300.0	7,535.0	7,655.5	7,498.6	102.3	24.3	87.24	-1,951.0	-1,136.3	3,814.3	3,693.6	120.73	31.594		
13,400.0	7,535.0	7,654.6	7,497.7	104.0	24.3	87.19	-1,951.0	-1,136.3	3,911.2	3,788.7	122.46	31.938		
13,500.0	7,535.0	7,653.7	7,496.8	105.8	24.3	87.13	-1,951.0	-1,136.3	4,008.2	3,884.0	124.19	32.273		
13,600.0	7,535.0	7,652.8	7,495.9	107.5	24.3	87.08	-1,951.0	-1,136.3	4,105.3	3,979.4	125.93	32.600		
13,700.0	7,535.0	7,651.9	7,495.0	109.3	24.3	87.02	-1,951.0	-1,136.3	4,202.6	4,074.9	127.66	32.920		
13,800.0	7,535.0	7,650.4	7,493.5	111.0	24.3	86.94	-1,951.0	-1,136.2	4,300.0	4,170.6	129.39	33.232		
13,900.0	7,535.0	7,648.9	7,492.0	112.7	24.3	86.85	-1,951.0	-1,136.2	4,397.5	4,266.4	131.12	33.538		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 0-4-26 (EXISTING) - ENCANA WELL - SURVE													Offset Site Error: 0.0 ft
Survey Program: 92-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
14,000.0	7,535.0	7,647.4	7,490.5	114.5	24.3	86.75	-1,951.0	-1,136.2	4,495.2	4,362.3	132.85	33.836	
14,100.0	7,535.0	7,645.8	7,488.9	116.2	24.2	86.66	-1,951.0	-1,136.1	4,592.9	4,458.3	134.58	34.128	
14,200.0	7,535.0	7,644.1	7,487.2	118.0	24.2	86.56	-1,951.0	-1,136.1	4,690.7	4,554.4	136.31	34.413	
14,300.0	7,535.0	7,642.4	7,485.5	119.7	24.2	86.46	-1,951.1	-1,136.1	4,788.6	4,650.6	138.03	34.692	
14,400.0	7,535.0	7,640.7	7,483.8	121.5	24.2	86.35	-1,951.1	-1,136.0	4,886.6	4,746.9	139.76	34.965	
14,500.0	7,535.0	7,638.8	7,481.9	123.2	24.2	86.25	-1,951.1	-1,136.0	4,984.7	4,843.2	141.48	35.232	
14,600.0	7,535.0	7,636.9	7,480.0	124.9	24.2	86.13	-1,951.1	-1,135.9	5,082.8	4,939.6	143.20	35.494	
14,672.4	7,535.0	7,635.5	7,478.6	126.2	24.2	86.05	-1,951.1	-1,135.9	5,153.9	5,009.5	144.45	35.679	
14,672.9	7,535.0	7,635.5	7,478.6	126.2	24.2	86.05	-1,951.1	-1,135.9	5,154.4	5,010.0	144.46	35.681	



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 11-26 (EXISTING) - ENCANA WELL - SURVEY													Offset Site Error:	0.0 ft
Survey Program: 92-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-169.51	-1,257.1	-232.7	1,278.5					
100.0	100.0	96.8	96.8	0.2	0.2	-169.52	-1,257.2	-232.5	1,278.5	1,278.2	0.32		3,984.764	
200.0	200.0	212.3	212.3	0.3	0.4	-169.52	-1,256.7	-232.5	1,278.2	1,277.5	0.70		1,832.416	
300.0	300.0	394.2	394.0	0.5	0.7	-169.45	-1,249.0	-232.7	1,274.2	1,273.0	1.21		1,049.597	
400.0	400.0	532.4	531.6	0.7	1.0	-169.38	-1,235.8	-231.6	1,264.5	1,262.9	1.68		750.708	
500.0	500.0	705.2	702.8	0.8	1.5	-169.23	-1,212.9	-230.6	1,251.7	1,249.3	2.32		539.847	
600.0	600.0	846.5	841.5	1.0	2.0	-168.89	-1,186.3	-232.9	1,233.4	1,230.5	2.97		414.929	
700.0	700.0	976.4	967.9	1.2	2.6	-168.33	-1,156.6	-239.0	1,211.7	1,208.0	3.69		328.440	
800.0	800.0	1,081.5	1,069.6	1.4	3.1	-167.75	-1,131.1	-245.5	1,189.1	1,184.8	4.34		273.936	
900.0	900.0	1,162.9	1,148.3	1.5	3.4	-167.23	-1,111.2	-251.8	1,166.7	1,161.8	4.88		238.908	
1,000.0	1,000.0	1,248.9	1,231.6	1.7	3.8	-166.66	-1,091.2	-258.8	1,145.8	1,140.3	5.45		210.169	
1,100.0	1,100.0	1,381.7	1,359.8	1.9	4.5	-165.65	-1,058.9	-270.9	1,124.1	1,117.8	6.29		178.779	
1,200.0	1,200.0	1,494.5	1,468.0	2.1	5.0	-112.74	-1,028.5	-281.2	1,100.5	1,095.1	5.34		205.986	
1,300.0	1,300.0	1,600.2	1,569.0	2.2	5.6	-112.21	-998.8	-290.2	1,076.3	1,070.4	5.86		183.547	
1,400.0	1,399.9	1,711.6	1,675.3	2.4	6.2	-111.70	-966.7	-299.5	1,052.3	1,045.9	6.43		163.732	
1,500.0	1,499.7	1,807.1	1,765.9	2.6	6.8	-111.29	-937.8	-308.2	1,027.8	1,020.9	6.95		147.802	
1,600.0	1,599.4	1,897.0	1,851.4	2.8	7.3	-110.98	-911.2	-316.5	1,004.7	997.3	7.47		134.535	
1,619.7	1,619.0	1,914.9	1,868.5	2.8	7.4	-110.93	-906.0	-318.1	1,000.3	992.8	7.57		132.129	
1,700.0	1,699.0	1,990.4	1,940.3	3.0	7.8	-110.52	-884.2	-325.1	982.7	974.7	8.02		122.572	
1,800.0	1,798.5	2,079.1	2,025.0	3.2	8.3	-110.01	-858.8	-333.5	961.2	952.6	8.56		112.240	
1,900.0	1,898.1	2,171.0	2,112.8	3.4	8.8	-109.48	-833.3	-342.4	940.7	931.6	9.14		102.975	
2,000.0	1,997.7	2,264.6	2,202.3	3.6	9.3	-108.90	-807.7	-351.6	920.7	910.9	9.72		94.671	
2,100.0	2,097.3	2,361.0	2,294.7	3.9	9.8	-108.31	-781.8	-360.8	901.1	890.8	10.33		87.223	
2,200.0	2,196.9	2,463.0	2,392.5	4.1	10.3	-107.68	-754.2	-370.2	881.4	870.5	10.97		80.375	
2,300.0	2,296.5	2,554.0	2,479.8	4.3	10.8	-107.11	-729.7	-378.3	861.8	850.2	11.56		74.530	
2,400.0	2,396.1	2,658.9	2,580.4	4.5	11.3	-106.42	-701.7	-387.9	842.6	830.4	12.24		68.825	
2,500.0	2,495.7	2,748.6	2,666.3	4.7	11.8	-105.75	-677.3	-396.4	823.2	810.3	12.87		63.955	
2,600.0	2,595.3	2,840.2	2,754.3	5.0	12.3	-105.09	-653.4	-405.1	804.9	791.4	13.51		59.594	
2,700.0	2,694.8	2,933.5	2,844.1	5.2	12.7	-104.40	-629.7	-413.9	787.4	773.2	14.16		55.590	
2,800.0	2,794.4	3,024.0	2,931.3	5.4	13.2	-103.69	-607.2	-422.9	770.7	755.9	14.82		51.999	
2,900.0	2,894.0	3,133.1	3,036.6	5.6	13.7	-102.83	-580.4	-433.4	754.3	738.7	15.57		48.446	
3,000.0	2,993.6	3,241.0	3,140.2	5.9	14.3	-101.93	-552.2	-443.0	736.3	719.9	16.33		45.074	
3,100.0	3,093.2	3,341.8	3,236.9	6.1	14.8	-101.05	-525.1	-451.6	717.5	700.4	17.07		42.025	
3,200.0	3,192.8	3,435.8	3,327.2	6.3	15.3	-100.19	-499.9	-459.5	699.1	681.3	17.79		39.290	
3,300.0	3,292.4	3,532.2	3,419.7	6.5	15.8	-99.29	-474.4	-467.4	680.9	662.4	18.53		36.740	
3,400.0	3,392.0	3,614.2	3,498.6	6.8	16.2	-98.42	-453.4	-475.4	664.4	645.2	19.24		34.536	
3,500.0	3,491.6	3,718.0	3,598.4	7.0	16.7	-97.24	-427.0	-486.2	648.6	628.5	20.08		32.293	
3,600.0	3,591.1	3,799.0	3,676.7	7.2	17.1	-96.35	-407.6	-494.2	634.2	613.4	20.77		30.526	
3,700.0	3,690.7	3,892.0	3,767.1	7.5	17.5	-95.47	-387.7	-502.8	621.7	600.2	21.48		28.939	
3,800.0	3,790.3	3,986.0	3,859.1	7.7	17.8	-94.79	-369.6	-509.8	610.2	588.1	22.12		27.587	
3,900.0	3,889.9	4,069.0	3,940.8	7.9	18.1	-94.38	-356.0	-515.0	600.6	578.0	22.65		26.518	
4,000.0	3,989.5	4,156.0	4,026.9	8.2	18.4	-94.12	-344.4	-520.0	593.4	570.3	23.15		25.637	
4,100.0	4,089.1	4,246.6	4,116.8	8.4	18.6	-93.97	-334.6	-525.1	588.1	564.4	23.62		24.897	
4,200.0	4,188.7	4,343.6	4,213.2	8.6	18.8	-93.94	-325.6	-529.9	583.8	559.7	24.06		24.265	
4,300.0	4,288.3	4,450.7	4,320.0	8.9	19.0	-94.18	-316.9	-532.8	579.2	554.8	24.44		23.702	
4,400.0	4,387.9	4,548.0	4,417.0	9.1	19.2	-94.68	-309.9	-532.8	573.9	549.2	24.71		23.227	
4,500.0	4,487.4	4,642.0	4,510.9	9.3	19.3	-95.46	-305.8	-531.0	569.9	545.1	24.88		22.910	
4,600.0	4,587.0	4,721.8	4,590.6	9.6	19.3	-96.19	-304.3	-530.0	568.5	543.4	25.07		22.675	
4,614.2	4,601.2	4,735.0	4,603.8	9.6	19.3	-96.29	-304.1	-530.0	568.5	543.4	25.10		22.649	
4,700.0	4,686.6	4,819.3	4,688.1	9.8	19.4	-96.91	-302.8	-531.0	568.7	543.4	25.30		22.478	
4,800.0	4,786.2	4,917.0	4,785.8	10.0	19.5	-97.57	-301.2	-532.5	569.2	543.7	25.53		22.292	
4,900.0	4,885.8	5,016.0	4,884.8	10.3	19.6	-98.28	-299.9	-533.9	570.1	544.3	25.76		22.127	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 11-26 (EXISTING) - ENCANA WELL - SURVEY													Offset Site Error:	0.0 ft
Survey Program: 92-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
5,000.0	4,985.4	5,114.1	4,982.9	10.5	19.7	-98.96	-298.7	-535.6	571.2	545.2	26.00		21.969	
5,100.0	5,085.0	5,212.3	5,081.1	10.7	19.8	-99.72	-298.2	-536.7	572.7	546.5	26.20		21.858	
5,200.0	5,184.6	5,309.6	5,178.4	11.0	19.9	-100.55	-298.4	-537.2	574.7	548.3	26.39		21.780	
5,300.0	5,284.2	5,407.9	5,276.6	11.2	20.0	-101.41	-298.9	-537.6	577.1	550.5	26.56		21.726	
5,400.0	5,383.7	5,505.1	5,373.9	11.4	20.0	-102.28	-299.9	-537.8	580.0	553.2	26.73		21.697	
5,500.0	5,483.3	5,604.5	5,473.2	11.7	20.1	-103.17	-301.0	-538.2	583.2	556.3	26.91		21.675	
5,600.0	5,582.9	5,703.6	5,572.3	11.9	20.2	-103.95	-301.8	-539.4	586.5	559.4	27.12		21.628	
5,700.0	5,682.5	5,802.9	5,671.6	12.1	20.3	-104.56	-302.1	-542.1	590.2	562.8	27.39		21.548	
5,800.0	5,782.1	5,903.9	5,772.5	12.4	20.4	-105.05	-301.8	-546.1	593.7	566.0	27.69		21.443	
5,900.0	5,881.7	6,003.6	5,872.2	12.6	20.5	-105.67	-301.9	-548.6	597.2	569.2	27.93		21.380	
6,000.0	5,981.3	6,104.3	5,972.8	12.8	20.6	-106.56	-303.1	-548.5	600.8	572.7	28.09		21.384	
6,100.0	6,080.9	6,207.1	6,075.6	13.1	20.6	-107.55	-304.2	-547.3	604.1	575.9	28.24		21.393	
6,200.0	6,180.5	6,309.4	6,177.9	13.3	20.7	-108.55	-304.9	-545.8	607.0	578.7	28.38		21.390	
6,300.0	6,280.0	6,419.7	6,288.2	13.5	20.8	-109.54	-304.4	-544.4	609.2	580.6	28.56		21.333	
6,400.0	6,379.6	6,512.2	6,380.7	13.8	20.9	-110.33	-303.4	-543.5	611.0	582.2	28.73		21.264	
6,500.0	6,479.2	6,612.0	6,480.5	14.0	21.0	-111.25	-303.2	-542.0	613.5	584.6	28.90		21.228	
6,600.0	6,578.8	6,711.4	6,579.9	14.2	21.1	-112.08	-302.7	-541.3	616.2	587.1	29.10		21.176	
6,700.0	6,678.4	6,811.6	6,680.1	14.5	21.2	-112.83	-301.9	-541.5	619.0	589.7	29.33		21.106	
6,800.0	6,778.0	6,913.2	6,781.7	14.7	21.4	-113.49	-300.7	-542.5	621.6	592.1	29.58		21.012	
6,900.0	6,877.6	7,014.0	6,882.4	14.9	21.5	-114.09	-299.1	-544.0	624.1	594.3	29.86		20.905	
6,953.0	6,930.4	7,067.0	6,935.4	15.1	21.6	-114.39	-298.2	-544.9	625.4	595.4	30.00		20.846	
7,000.0	6,977.2	7,114.4	6,982.8	15.1	21.6	-56.04	-297.4	-545.7	624.7	594.7	29.99		20.831	
7,050.0	7,027.0	7,164.8	7,033.2	15.2	21.7	-17.26	-296.4	-546.6	619.8	590.0	29.87		20.753	
7,100.0	7,076.2	7,214.4	7,082.8	15.2	21.8	-4.36	-295.4	-547.6	610.7	581.1	29.64		20.608	
7,150.0	7,124.6	7,262.9	7,131.3	15.3	21.8	1.69	-294.4	-548.6	597.5	568.2	29.30		20.391	
7,200.0	7,171.8	7,310.7	7,179.0	15.2	21.9	5.50	-293.3	-549.5	580.2	551.3	28.89		20.087	
7,250.0	7,217.4	7,356.8	7,225.1	15.2	22.0	8.49	-292.2	-550.5	559.0	530.6	28.41		19.680	
7,300.0	7,261.1	7,400.6	7,268.8	15.2	22.0	11.27	-291.1	-551.5	534.1	506.2	27.90		19.143	
7,350.0	7,302.5	7,441.8	7,310.0	15.2	22.1	14.21	-290.0	-552.3	505.7	478.3	27.42		18.441	
7,400.0	7,341.3	7,480.5	7,348.8	15.1	22.1	17.61	-288.9	-553.2	474.1	447.1	27.06		17.522	
7,450.0	7,377.2	7,516.4	7,384.6	15.1	22.2	21.82	-287.8	-554.0	439.6	412.7	26.92		16.328	
7,500.0	7,410.0	7,548.8	7,417.0	15.1	22.3	27.21	-286.8	-554.7	402.6	375.4	27.18		14.811	
7,550.0	7,439.4	7,576.7	7,444.8	15.2	22.3	34.11	-285.8	-555.4	363.5	335.5	27.99		12.988	
7,600.0	7,465.2	7,600.6	7,468.8	15.2	22.3	42.86	-285.0	-556.0	323.1	293.6	29.48		10.962	
7,650.0	7,487.1	7,620.8	7,489.0	15.3	22.4	53.42	-284.3	-556.5	282.0	250.5	31.49		8.955	
7,700.0	7,505.1	7,637.0	7,505.1	15.5	22.4	64.82	-283.8	-557.0	241.4	207.8	33.51		7.203	
7,750.0	7,518.9	7,649.1	7,517.2	15.7	22.4	75.32	-283.4	-557.3	202.7	167.8	34.94		5.802	
7,800.0	7,528.5	7,657.1	7,525.2	15.9	22.4	83.27	-283.1	-557.6	168.8	133.1	35.70		4.730	
7,850.0	7,533.9	7,660.8	7,528.9	16.2	22.4	87.76	-283.0	-557.7	144.1	108.0	36.11		3.992	
7,886.2	7,535.0	7,660.8	7,528.9	16.4	22.4	88.68	-283.0	-557.7	135.3	99.0	36.37		3.721	
7,900.0	7,535.0	7,660.4	7,528.5	16.5	22.4	88.49	-283.0	-557.6	134.4	97.9	36.47		3.686	
7,902.0	7,535.0	7,660.3	7,528.4	16.5	22.4	88.46	-283.0	-557.6	134.4	97.9	36.48		3.684 CC, ES, SF	
8,000.0	7,535.0	7,657.1	7,525.2	17.2	22.4	87.09	-283.1	-557.6	166.3	129.0	37.29		4.460	
8,100.0	7,535.0	7,653.7	7,521.8	18.1	22.4	85.64	-283.3	-557.5	239.2	201.0	38.24		6.257	
8,200.0	7,535.0	7,650.2	7,518.3	19.1	22.4	84.15	-283.4	-557.4	326.8	287.5	39.27		8.321	
8,300.0	7,535.0	7,646.8	7,514.9	20.2	22.4	82.73	-283.5	-557.3	419.9	379.5	40.39		10.397	
8,400.0	7,535.0	7,643.4	7,511.5	21.4	22.4	81.31	-283.6	-557.2	515.6	474.0	41.55		12.409	
8,500.0	7,535.0	7,640.1	7,508.2	22.7	22.4	79.90	-283.7	-557.1	612.6	569.9	42.75		14.331	
8,600.0	7,535.0	7,636.7	7,504.8	24.0	22.4	78.49	-283.8	-557.0	710.5	666.5	43.97		16.159	
8,700.0	7,535.0	7,633.3	7,501.4	25.4	22.4	77.09	-283.9	-556.9	808.8	763.6	45.19		17.897	
8,800.0	7,535.0	7,629.9	7,498.0	26.9	22.4	75.70	-284.0	-556.8	907.5	861.1	46.42		19.550	
8,900.0	7,535.0	7,626.4	7,494.5	28.3	22.4	74.32	-284.1	-556.7	1,006.5	958.8	47.64		21.128	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 11-26 (EXISTING) - ENCANA WELL - SURVEY												Offset Site Error: 0.0 ft			
Survey Program: 92-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	7,535.0	7,623.0	7,491.1	29.8	22.4	72.95	-284.3	-556.6	1,105.6	1,056.8	48.84	22.637			
9,100.0	7,535.0	7,619.5	7,487.7	31.3	22.4	71.59	-284.4	-556.5	1,204.9	1,154.8	50.02	24.088			
9,200.0	7,535.0	7,616.1	7,484.2	32.9	22.4	70.25	-284.5	-556.4	1,304.2	1,253.1	51.18	25.486			
9,300.0	7,535.0	7,612.6	7,480.7	34.4	22.4	68.93	-284.6	-556.3	1,403.7	1,351.4	52.30	26.838			
9,400.0	7,535.0	7,609.1	7,477.2	36.0	22.3	67.62	-284.7	-556.2	1,503.2	1,449.8	53.40	28.152			
9,500.0	7,535.0	7,605.6	7,473.7	37.6	22.3	66.33	-284.8	-556.1	1,602.8	1,548.3	54.45	29.433			
9,600.0	7,535.0	7,602.1	7,470.2	39.2	22.3	65.05	-285.0	-556.0	1,702.4	1,646.9	55.48	30.685			
9,700.0	7,535.0	7,598.6	7,466.7	40.9	22.3	63.80	-285.1	-555.9	1,802.0	1,745.5	56.46	31.914			
9,800.0	7,535.0	7,595.0	7,463.2	42.5	22.3	62.57	-285.2	-555.8	1,901.7	1,844.3	57.41	33.123			
9,900.0	7,535.0	7,591.5	7,459.6	44.1	22.3	61.36	-285.3	-555.8	2,001.4	1,943.1	58.32	34.316			
10,000.0	7,535.0	7,587.9	7,456.0	45.8	22.3	60.17	-285.4	-555.7	2,101.1	2,041.9	59.19	35.496			
10,100.0	7,535.0	7,584.3	7,452.5	47.4	22.3	59.00	-285.6	-555.6	2,200.9	2,140.8	60.03	36.666			
10,200.0	7,535.0	7,580.7	7,448.9	49.1	22.3	57.85	-285.7	-555.5	2,300.6	2,239.8	60.82	37.827			
10,300.0	7,535.0	7,577.1	7,445.3	50.8	22.3	56.73	-285.8	-555.4	2,400.4	2,338.8	61.57	38.984			
10,400.0	7,535.0	7,573.5	7,441.7	52.5	22.3	55.63	-285.9	-555.3	2,500.2	2,437.9	62.29	40.136			
10,500.0	7,535.0	7,569.9	7,438.0	54.1	22.3	54.56	-286.1	-555.2	2,600.0	2,537.0	62.97	41.287			
10,600.0	7,535.0	7,566.2	7,434.4	55.8	22.3	53.50	-286.2	-555.1	2,699.8	2,636.2	63.62	42.437			
10,700.0	7,535.0	7,562.5	7,430.7	57.5	22.3	52.47	-286.3	-555.0	2,799.6	2,735.4	64.23	43.587			
10,800.0	7,535.0	7,558.9	7,427.1	59.2	22.3	51.46	-286.4	-554.9	2,899.4	2,834.6	64.81	44.739			
10,900.0	7,535.0	7,556.0	7,424.2	60.9	22.3	50.69	-286.5	-554.9	2,999.3	2,933.8	65.53	45.772			
11,000.0	7,535.0	7,556.0	7,424.2	62.6	22.3	50.69	-286.5	-554.9	3,099.1	3,032.3	66.85	46.358			
11,100.0	7,535.0	7,556.0	7,424.2	64.3	22.3	50.69	-286.5	-554.9	3,199.0	3,130.8	68.18	46.921			
11,200.0	7,535.0	7,556.0	7,424.2	66.0	22.3	50.69	-286.5	-554.9	3,298.8	3,229.3	69.51	47.461			
11,300.0	7,535.0	7,544.1	7,412.3	67.7	22.2	47.67	-286.9	-554.6	3,398.7	3,330.6	68.08	49.920			
11,400.0	7,535.0	7,541.3	7,409.5	69.4	22.2	47.01	-287.0	-554.5	3,498.6	3,429.8	68.72	50.909			
11,496.2	7,535.0	7,538.7	7,406.9	71.1	22.2	46.39	-287.1	-554.5	3,594.6	3,525.3	69.33	51.851			
11,500.0	7,535.0	7,538.6	7,406.8	71.2	22.2	46.37	-287.1	-554.5	3,598.4	3,529.1	69.35	51.888			
11,600.0	7,535.0	7,535.9	7,404.1	72.9	22.2	45.75	-287.2	-554.4	3,698.3	3,628.3	69.97	52.858			
11,700.0	7,535.0	7,533.3	7,401.5	74.6	22.2	45.15	-287.3	-554.3	3,798.2	3,727.6	70.57	53.820			
11,800.0	7,535.0	7,530.7	7,398.9	76.3	22.2	44.57	-287.4	-554.3	3,898.1	3,826.9	71.17	54.773			
11,900.0	7,535.0	7,528.1	7,396.3	78.0	22.2	44.01	-287.5	-554.2	3,997.9	3,926.2	71.75	55.717			
12,000.0	7,535.0	7,525.5	7,393.7	79.7	22.2	43.46	-287.5	-554.2	4,097.8	4,025.5	72.33	56.654			
12,100.0	7,535.0	7,523.0	7,391.2	81.5	22.2	42.93	-287.6	-554.1	4,197.7	4,124.8	72.90	57.582			
12,200.0	7,535.0	7,520.5	7,388.7	83.2	22.2	42.41	-287.7	-554.0	4,297.6	4,224.2	73.46	58.502			
12,296.2	7,535.0	7,518.1	7,386.3	84.9	22.2	41.93	-287.8	-554.0	4,393.7	4,319.7	73.99	59.380			
12,300.0	7,535.0	7,518.0	7,386.2	84.9	22.2	43.16	-287.8	-554.0	4,397.5	4,322.0	75.55	58.209			
12,400.0	7,535.0	7,515.6	7,383.8	86.6	22.2	63.06	-287.9	-553.9	4,497.4	4,400.1	97.21	46.265			
12,492.9	7,535.0	7,513.4	7,381.6	88.3	22.2	71.07	-287.9	-553.9	4,589.9	4,485.8	104.10	44.091			
12,500.0	7,535.0	7,513.3	7,381.5	88.4	22.2	71.05	-287.9	-553.9	4,597.0	4,492.8	104.21	44.114			
12,600.0	7,535.0	7,511.0	7,379.2	90.1	22.2	70.78	-288.0	-553.8	4,696.5	4,590.8	105.69	44.438			
12,700.0	7,535.0	7,508.7	7,376.9	91.9	22.2	70.52	-288.1	-553.8	4,796.0	4,688.8	107.16	44.754			
12,800.0	7,535.0	7,506.5	7,374.7	93.6	22.2	70.26	-288.1	-553.7	4,895.5	4,786.9	108.63	45.064			
12,900.0	7,535.0	7,504.3	7,372.5	95.3	22.2	70.00	-288.2	-553.7	4,995.1	4,885.0	110.10	45.368			
13,000.0	7,535.0	7,502.1	7,370.3	97.1	22.2	69.74	-288.3	-553.6	5,094.6	4,983.1	111.57	45.665			
13,100.0	7,535.0	7,499.9	7,368.1	98.8	22.2	69.49	-288.3	-553.6	5,194.2	5,081.2	113.02	45.957			
13,200.0	7,535.0	7,497.8	7,366.0	100.5	22.2	69.24	-288.4	-553.5	5,293.8	5,179.4	114.48	46.243			
13,300.0	7,535.0	7,495.6	7,363.9	102.3	22.2	69.00	-288.5	-553.5	5,393.5	5,277.5	115.93	46.524			
13,400.0	7,535.0	7,493.5	7,361.8	104.0	22.2	68.76	-288.5	-553.4	5,493.1	5,375.7	117.37	46.800			
13,500.0	7,535.0	7,491.5	7,359.7	105.8	22.2	68.52	-288.6	-553.4	5,592.7	5,473.9	118.81	47.071			
13,600.0	7,535.0	7,489.4	7,357.6	107.5	22.2	68.28	-288.7	-553.4	5,692.4	5,572.1	120.25	47.337			
13,700.0	7,535.0	7,487.3	7,355.6	109.3	22.2	68.05	-288.7	-553.3	5,792.0	5,670.3	121.68	47.599			
13,800.0	7,535.0	7,485.3	7,353.6	111.0	22.2	67.82	-288.8	-553.3	5,891.7	5,768.6	123.11	47.857			

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 11-26 (EXISTING) - ENCANA WELL - SURVEY													Offset Site Error: 0.0 ft
Survey Program: 92-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	7,535.0	7,483.3	7,351.6	112.7	22.1	67.60	-288.8	-553.2	5,991.4	5,866.8	124.54	48.110	
14,000.0	7,535.0	7,481.3	7,349.6	114.5	22.1	67.37	-288.9	-553.2	6,091.1	5,965.1	125.96	48.359	
14,100.0	7,535.0	7,479.4	7,347.6	116.2	22.1	67.15	-289.0	-553.1	6,190.8	6,063.4	127.37	48.604	
14,200.0	7,535.0	7,477.4	7,345.7	118.0	22.1	66.93	-289.0	-553.1	6,290.5	6,161.7	128.78	48.845	
14,300.0	7,535.0	7,461.0	7,329.3	119.7	22.1	65.12	-289.5	-552.7	6,390.2	6,261.6	128.66	49.666	
14,400.0	7,535.0	7,461.0	7,329.3	121.5	22.1	65.12	-289.5	-552.7	6,489.9	6,359.7	130.25	49.828	
14,500.0	7,535.0	7,461.0	7,329.3	123.2	22.1	65.12	-289.5	-552.7	6,589.7	6,457.8	131.83	49.985	
14,600.0	7,535.0	7,461.0	7,329.3	124.9	22.1	65.12	-289.5	-552.7	6,689.4	6,556.0	133.42	50.139	
14,672.4	7,535.0	7,461.0	7,329.3	126.2	22.1	65.12	-289.5	-552.7	6,761.6	6,627.0	134.56	50.248	
14,672.9	7,535.0	7,461.0	7,329.3	126.2	22.1	65.12	-289.5	-552.7	6,762.1	6,627.5	134.57	50.249	



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 12-26 (EXISTING) - ENCANA WELL - GYRO												Offset Site Error: 0.0 ft			
Survey Program: 100-Gyro														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	-171.15	-1,291.4	-201.1	1,307.0						
100.0	100.0	107.4	107.4	0.2	0.1	-171.13	-1,290.7	-201.4	1,306.4	1,306.2	0.25	5,304.704			
200.0	200.0	202.5	202.5	0.3	0.2	-171.10	-1,289.8	-201.9	1,305.6	1,305.1	0.50	2,589.671			
300.0	300.0	300.9	300.9	0.5	0.3	-171.07	-1,289.2	-202.5	1,305.0	1,304.2	0.76	1,706.291			
400.0	400.0	405.9	405.8	0.7	0.4	-171.05	-1,288.3	-202.9	1,304.2	1,303.2	1.03	1,264.553			
500.0	500.0	502.0	502.0	0.8	0.4	-171.02	-1,287.5	-203.4	1,303.5	1,302.2	1.29	1,010.238			
600.0	600.0	609.4	609.4	1.0	0.5	-170.98	-1,286.4	-204.1	1,302.5	1,301.0	1.56	835.296			
700.0	700.0	703.6	703.6	1.2	0.6	-170.95	-1,285.4	-204.7	1,301.6	1,299.8	1.82	716.525			
800.0	800.0	800.2	800.2	1.4	0.7	-170.92	-1,284.7	-205.2	1,301.0	1,298.9	2.08	626.804			
900.0	900.0	900.0	900.0	1.5	0.8	-170.88	-1,284.0	-206.0	1,300.5	1,298.1	2.34	556.273			
978.2	978.2	972.3	972.2	1.7	0.9	-170.84	-1,283.7	-206.9	1,300.2	1,297.7	2.54	512.411			
1,000.0	1,000.0	992.0	991.9	1.7	0.9	-170.83	-1,283.6	-207.2	1,300.2	1,297.6	2.59	501.491			
1,100.0	1,100.0	1,089.2	1,089.2	1.9	1.0	-170.76	-1,283.7	-208.8	1,300.5	1,297.7	2.85	455.934			
1,200.0	1,200.0	1,197.7	1,197.6	2.1	1.1	-118.48	-1,283.4	-210.7	1,301.0	1,297.9	3.12	416.761			
1,300.0	1,300.0	1,290.2	1,290.1	2.2	1.1	-118.48	-1,283.2	-212.3	1,302.3	1,298.9	3.38	385.328			
1,400.0	1,399.9	1,386.8	1,386.7	2.4	1.2	-118.53	-1,283.3	-214.5	1,304.8	1,301.2	3.64	358.116			
1,500.0	1,499.7	1,491.1	1,491.0	2.6	1.3	-118.65	-1,283.3	-216.8	1,308.1	1,304.2	3.92	333.775			
1,600.0	1,599.4	1,585.7	1,585.5	2.8	1.4	-118.79	-1,283.3	-219.2	1,312.3	1,308.1	4.19	312.967			
1,619.7	1,619.0	1,604.8	1,604.6	2.8	1.4	-118.83	-1,283.3	-219.7	1,313.3	1,309.0	4.25	309.138			
1,700.0	1,699.0	1,692.8	1,692.5	3.0	1.5	-119.04	-1,283.3	-221.9	1,317.1	1,312.6	4.48	293.784			
1,800.0	1,798.5	1,792.4	1,792.1	3.2	1.6	-119.28	-1,282.9	-224.3	1,321.5	1,316.7	4.77	277.036			
1,900.0	1,898.1	1,883.0	1,882.7	3.4	1.7	-119.49	-1,282.9	-226.6	1,326.3	1,321.3	5.05	262.508			
2,000.0	1,997.7	1,988.2	1,987.9	3.6	1.8	-119.72	-1,283.1	-229.5	1,331.4	1,326.1	5.35	248.849			
2,100.0	2,097.3	2,091.6	2,091.2	3.9	1.8	-119.95	-1,282.9	-232.2	1,336.0	1,330.4	5.65	236.568			
2,200.0	2,196.9	2,196.9	2,196.5	4.1	1.9	-120.21	-1,282.4	-234.5	1,340.4	1,334.5	5.95	225.366			
2,300.0	2,296.5	2,293.2	2,292.8	4.3	2.0	-120.46	-1,281.9	-236.1	1,344.7	1,338.4	6.24	215.486			
2,400.0	2,396.1	2,391.2	2,390.8	4.5	2.1	-120.72	-1,281.6	-237.6	1,349.2	1,342.7	6.54	206.455			
2,500.0	2,495.7	2,483.9	2,483.5	4.7	2.2	-120.97	-1,281.6	-238.9	1,354.0	1,347.2	6.83	198.368			
2,600.0	2,595.3	2,581.2	2,580.7	5.0	2.3	-121.24	-1,282.0	-240.2	1,359.3	1,352.2	7.12	190.879			
2,700.0	2,694.8	2,679.6	2,679.2	5.2	2.4	-121.50	-1,282.5	-241.7	1,364.7	1,357.3	7.42	183.962			
2,800.0	2,794.4	2,780.4	2,780.0	5.4	2.5	-121.76	-1,283.1	-243.3	1,370.2	1,362.4	7.72	177.533			
2,900.0	2,894.0	2,886.0	2,885.6	5.6	2.5	-122.04	-1,283.4	-244.7	1,375.4	1,367.4	8.02	171.473			
3,000.0	2,993.6	2,981.3	2,980.8	5.9	2.6	-122.30	-1,283.5	-245.8	1,380.5	1,372.2	8.32	166.014			
3,100.0	3,093.2	3,086.5	3,086.1	6.1	2.7	-122.59	-1,283.8	-247.0	1,385.8	1,377.1	8.62	160.787			
3,200.0	3,192.8	3,188.5	3,188.0	6.3	2.8	-122.86	-1,283.7	-248.2	1,390.6	1,381.7	8.92	155.916			
3,300.0	3,292.4	3,285.4	3,284.9	6.5	2.9	-123.10	-1,283.5	-249.6	1,395.6	1,386.4	9.22	151.437			
3,400.0	3,392.0	3,384.0	3,383.5	6.8	3.0	-123.35	-1,283.6	-251.0	1,400.7	1,391.2	9.51	147.230			
3,500.0	3,491.6	3,485.8	3,485.3	7.0	3.1	-123.59	-1,283.6	-252.9	1,405.8	1,396.0	9.82	143.227			
3,600.0	3,591.1	3,580.2	3,579.7	7.2	3.2	-123.79	-1,283.6	-255.1	1,411.0	1,400.9	10.11	139.546			
3,700.0	3,690.7	3,678.8	3,678.2	7.5	3.3	-123.99	-1,283.9	-257.7	1,416.6	1,406.2	10.41	136.063			
3,800.0	3,790.3	3,784.9	3,784.3	7.7	3.3	-124.22	-1,284.0	-260.0	1,421.9	1,411.2	10.72	132.689			
3,900.0	3,889.9	3,888.4	3,887.8	7.9	3.4	-124.44	-1,283.7	-262.2	1,426.9	1,415.9	11.02	129.487			
4,000.0	3,989.5	3,985.6	3,984.9	8.2	3.5	-124.64	-1,283.4	-264.3	1,431.8	1,420.5	11.32	126.527			
4,100.0	4,089.1	4,089.8	4,089.1	8.4	3.6	-124.89	-1,283.1	-266.0	1,436.8	1,425.2	11.62	123.665			
4,200.0	4,188.7	4,196.4	4,195.7	8.6	3.7	-125.14	-1,282.3	-267.5	1,441.4	1,429.4	11.92	120.905			
4,300.0	4,288.3	4,300.0	4,299.3	8.9	3.8	-125.40	-1,281.1	-268.6	1,445.5	1,433.3	12.22	118.279			
4,400.0	4,387.9	4,396.8	4,396.1	9.1	3.9	-125.64	-1,280.0	-269.6	1,449.7	1,437.1	12.52	115.833			
4,500.0	4,487.4	4,496.1	4,495.3	9.3	4.0	-125.87	-1,279.0	-271.2	1,454.0	1,441.2	12.81	113.483			
4,600.0	4,587.0	4,603.2	4,602.4	9.6	4.1	-126.08	-1,277.6	-273.6	1,458.1	1,445.0	13.12	111.160			
4,700.0	4,686.6	4,703.5	4,702.7	9.8	4.2	-126.27	-1,276.1	-275.9	1,462.0	1,448.6	13.42	108.974			
4,800.0	4,786.2	4,810.3	4,809.5	10.0	4.3	-126.50	-1,274.2	-278.0	1,465.6	1,451.9	13.72	106.835			
4,900.0	4,885.8	4,915.7	4,914.8	10.3	4.3	-126.74	-1,271.8	-279.3	1,468.8	1,454.8	14.02	104.780			

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 12-26 (EXISTING) - ENCANA WELL - GYRO												Offset Site Error:	0.0 ft
Survey Program: 100-Gyro												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	4,985.4	5,011.7	5,010.8	10.5	4.4	-126.99	-1,269.6	-279.8	1,472.0	1,457.7	14.31	102.883	
5,100.0	5,085.0	5,108.9	5,108.0	10.7	4.5	-127.27	-1,267.6	-279.8	1,475.4	1,460.8	14.60	101.078	
5,200.0	5,184.6	5,200.0	5,199.1	11.0	4.6	-127.52	-1,266.0	-279.8	1,479.2	1,464.3	14.88	99.400	
5,300.0	5,284.2	5,288.1	5,287.2	11.2	4.7	-127.75	-1,265.0	-280.2	1,483.6	1,468.5	15.16	97.837	
5,400.0	5,383.7	5,380.9	5,380.0	11.4	4.8	-127.95	-1,264.7	-281.6	1,488.9	1,473.4	15.45	96.346	
5,500.0	5,483.3	5,474.6	5,473.7	11.7	4.8	-128.12	-1,264.8	-284.0	1,494.5	1,478.8	15.75	94.916	
5,600.0	5,582.9	5,570.1	5,569.0	11.9	4.9	-128.24	-1,265.2	-287.7	1,500.5	1,484.5	16.04	93.533	
5,700.0	5,682.5	5,662.6	5,661.5	12.1	5.0	-128.32	-1,265.9	-292.2	1,506.9	1,490.5	16.34	92.225	
5,800.0	5,782.1	5,752.2	5,751.0	12.4	5.1	-128.39	-1,267.1	-296.6	1,513.8	1,497.2	16.63	91.019	
5,900.0	5,881.7	5,848.7	5,847.3	12.6	5.2	-128.51	-1,269.0	-300.3	1,521.4	1,504.4	16.93	89.871	
6,000.0	5,981.3	5,959.5	5,958.1	12.8	5.3	-128.67	-1,270.8	-303.7	1,528.6	1,511.4	17.23	88.695	
6,100.0	6,080.9	6,065.3	6,063.8	13.1	5.4	-128.85	-1,271.7	-306.5	1,535.1	1,517.6	17.53	87.546	
6,200.0	6,180.5	6,176.2	6,174.7	13.3	5.5	-129.07	-1,272.3	-308.5	1,541.3	1,523.4	17.84	86.414	
6,300.0	6,280.0	6,275.8	6,274.3	13.5	5.6	-129.28	-1,272.2	-309.6	1,546.9	1,528.8	18.13	85.340	
6,400.0	6,379.6	6,377.0	6,375.5	13.8	5.6	-129.52	-1,272.2	-310.3	1,552.6	1,534.2	18.42	84.309	
6,500.0	6,479.2	6,478.5	6,477.0	14.0	5.7	-129.76	-1,272.0	-311.0	1,558.2	1,539.5	18.71	83.303	
6,600.0	6,578.8	6,580.1	6,578.5	14.2	5.8	-129.99	-1,271.8	-311.7	1,563.8	1,544.8	19.00	82.323	
6,700.0	6,678.4	6,688.3	6,686.7	14.5	5.9	-130.25	-1,271.1	-312.2	1,569.0	1,549.7	19.29	81.346	
6,800.0	6,778.0	6,775.8	6,774.3	14.7	6.0	-130.47	-1,270.6	-312.3	1,574.3	1,554.7	19.57	80.464	
6,900.0	6,877.6	6,858.9	6,857.3	14.9	6.1	-130.65	-1,270.9	-313.0	1,580.5	1,560.7	19.84	79.663	
6,953.0	6,930.4	6,902.9	6,901.4	15.1	6.1	-130.74	-1,271.5	-313.6	1,584.3	1,564.3	19.99	79.268	
7,000.0	6,977.2	6,948.0	6,946.5	15.1	6.1	-72.26	-1,272.2	-314.4	1,585.9	1,565.8	20.09	78.929	
7,050.0	7,027.0	6,996.1	6,994.5	15.2	6.2	-33.56	-1,273.0	-315.5	1,583.4	1,563.3	20.14	78.614	
7,100.0	7,076.2	7,054.5	7,052.9	15.2	6.2	-21.00	-1,274.0	-317.3	1,576.5	1,556.3	20.13	78.295	
7,150.0	7,124.6	7,110.0	7,108.3	15.3	6.3	-15.52	-1,274.5	-319.3	1,565.0	1,544.9	20.06	78.002	
7,200.0	7,171.8	7,154.2	7,152.6	15.2	6.3	-12.57	-1,275.0	-320.9	1,549.2	1,529.3	19.92	77.772	
7,250.0	7,217.4	7,200.0	7,198.3	15.2	6.4	-10.81	-1,275.5	-322.5	1,529.5	1,509.8	19.72	77.558	
7,300.0	7,261.1	7,242.4	7,240.7	15.2	6.4	-9.70	-1,276.0	-323.7	1,505.9	1,486.5	19.47	77.363	
7,350.0	7,302.5	7,285.6	7,283.8	15.2	6.5	-9.03	-1,276.5	-324.8	1,478.6	1,459.4	19.16	77.152	
7,400.0	7,341.3	7,325.9	7,324.2	15.1	6.5	-8.67	-1,276.9	-325.7	1,447.6	1,428.8	18.82	76.913	
7,450.0	7,377.2	7,363.3	7,361.5	15.1	6.5	-8.55	-1,277.2	-326.3	1,413.3	1,394.9	18.45	76.615	
7,500.0	7,410.0	7,397.3	7,395.6	15.1	6.6	-8.67	-1,277.5	-326.9	1,376.0	1,358.0	18.05	76.213	
7,550.0	7,439.4	7,424.9	7,423.2	15.2	6.6	-9.03	-1,277.7	-327.2	1,336.0	1,318.3	17.66	75.664	
7,600.0	7,465.2	7,449.0	7,447.3	15.2	6.6	-9.69	-1,277.9	-327.5	1,293.5	1,276.2	17.28	74.873	
7,650.0	7,487.1	7,469.7	7,467.9	15.3	6.6	-10.81	-1,278.1	-327.6	1,249.0	1,232.0	16.94	73.729	
7,700.0	7,505.1	7,486.8	7,485.0	15.5	6.6	-12.65	-1,278.3	-327.6	1,202.7	1,186.0	16.69	72.073	
7,750.0	7,518.9	7,500.2	7,498.5	15.7	6.6	-15.87	-1,278.5	-327.6	1,154.9	1,138.3	16.58	69.642	
7,800.0	7,528.5	7,511.3	7,509.6	15.9	6.6	-22.53	-1,278.6	-327.6	1,106.1	1,089.3	16.83	65.736	
7,850.0	7,533.9	7,517.7	7,515.9	16.2	6.7	-40.61	-1,278.7	-327.6	1,056.6	1,038.3	18.25	57.900	
7,886.2	7,535.0	7,519.4	7,517.6	16.4	6.7	-79.67	-1,278.7	-327.6	1,020.5	999.6	20.89	48.840	
7,900.0	7,535.0	7,519.5	7,517.8	16.5	6.7	-79.81	-1,278.7	-327.6	1,006.7	985.7	21.00	47.935	
8,000.0	7,535.0	7,520.7	7,518.9	17.2	6.7	-80.87	-1,278.7	-327.6	906.9	885.1	21.87	41.475	
8,100.0	7,535.0	7,521.9	7,520.1	18.1	6.7	-81.91	-1,278.7	-327.6	807.2	784.3	22.88	35.286	
8,200.0	7,535.0	7,523.0	7,521.3	19.1	6.7	-82.94	-1,278.7	-327.6	707.6	683.5	24.01	29.475	
8,300.0	7,535.0	7,524.2	7,522.4	20.2	6.7	-83.96	-1,278.7	-327.6	608.0	582.8	25.23	24.095	
8,400.0	7,535.0	7,525.3	7,523.5	21.4	6.7	-84.96	-1,278.7	-327.6	508.7	482.1	26.54	19.164	
8,500.0	7,535.0	7,526.4	7,524.6	22.7	6.7	-85.96	-1,278.8	-327.6	409.6	381.7	27.92	14.672	
8,600.0	7,535.0	7,527.4	7,525.7	24.0	6.7	-86.94	-1,278.8	-327.6	311.2	281.8	29.34	10.603	
8,700.0	7,535.0	7,528.5	7,526.7	25.4	6.7	-87.91	-1,278.8	-327.6	214.2	183.3	30.82	6.950	
8,800.0	7,535.0	7,529.5	7,527.8	26.9	6.7	-88.86	-1,278.8	-327.6	122.1	89.7	32.32	3.777	
8,900.0	7,535.0	7,530.6	7,528.8	28.3	6.7	-89.80	-1,278.8	-327.6	62.8	28.9	33.85	1.854	
8,904.8	7,535.0	7,530.6	7,528.8	28.4	6.7	-89.84	-1,278.8	-327.6	62.6	28.6	33.92	1.844 CC, ES, 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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 12-26 (EXISTING) - ENCANA WELL - GYRO												Offset Site Error:	0.0 ft
Survey Program: 100-Gyro												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis		
9,000.0	7,535.0	7,531.6	7,529.8	29.8	6.7	-90.72	-1,278.8	-327.6	113.9	78.5	35.40	3.218	
9,100.0	7,535.0	7,532.6	7,530.8	31.3	6.7	-91.64	-1,278.8	-327.6	205.0	168.0	36.97	5.544	
9,200.0	7,535.0	7,533.5	7,531.8	32.9	6.7	-92.53	-1,278.8	-327.6	301.7	263.2	38.55	7.828	
9,300.0	7,535.0	7,534.5	7,532.7	34.4	6.7	-93.42	-1,278.8	-327.6	400.1	360.0	40.13	9.969	
9,400.0	7,535.0	7,535.5	7,533.7	36.0	6.7	-94.28	-1,278.9	-327.6	499.1	457.4	41.72	11.962	
9,500.0	7,535.0	7,536.4	7,534.6	37.6	6.7	-95.14	-1,278.9	-327.6	598.4	555.1	43.32	13.815	
9,600.0	7,535.0	7,537.3	7,535.6	39.2	6.7	-95.98	-1,278.9	-327.6	698.0	653.0	44.91	15.541	
9,700.0	7,535.0	7,538.2	7,536.5	40.9	6.7	-96.80	-1,278.9	-327.6	797.6	751.1	46.50	17.151	
9,800.0	7,535.0	7,539.1	7,537.4	42.5	6.7	-97.61	-1,278.9	-327.6	897.3	849.2	48.09	18.658	
9,900.0	7,535.0	7,540.0	7,538.2	44.1	6.7	-98.40	-1,278.9	-327.5	997.1	947.4	49.68	20.072	
10,000.0	7,535.0	7,540.9	7,539.1	45.8	6.7	-99.19	-1,278.9	-327.5	1,096.9	1,045.7	51.25	21.401	
10,100.0	7,535.0	7,541.8	7,540.0	47.4	6.7	-99.95	-1,278.9	-327.5	1,196.8	1,143.9	52.83	22.655	
10,200.0	7,535.0	7,542.6	7,540.8	49.1	6.7	-100.70	-1,278.9	-327.5	1,296.6	1,242.2	54.39	23.840	
10,300.0	7,535.0	7,543.5	7,541.7	50.8	6.7	-101.44	-1,278.9	-327.5	1,396.5	1,340.6	55.94	24.963	
10,400.0	7,535.0	7,544.3	7,542.5	52.5	6.7	-102.17	-1,278.9	-327.5	1,496.4	1,438.9	57.49	26.030	
10,500.0	7,535.0	7,545.1	7,543.3	54.1	6.7	-102.88	-1,278.9	-327.5	1,596.3	1,537.3	59.02	27.046	
10,600.0	7,535.0	7,545.9	7,544.1	55.8	6.7	-103.58	-1,279.0	-327.5	1,696.3	1,635.7	60.55	28.016	
10,700.0	7,535.0	7,546.7	7,544.9	57.5	6.7	-104.26	-1,279.0	-327.5	1,796.2	1,734.1	62.06	28.943	
10,800.0	7,535.0	7,547.5	7,545.7	59.2	6.7	-104.93	-1,279.0	-327.5	1,896.1	1,832.6	63.56	29.831	
10,900.0	7,535.0	7,548.3	7,546.5	60.9	6.7	-105.59	-1,279.0	-327.5	1,996.1	1,931.0	65.05	30.683	
11,000.0	7,535.0	7,549.0	7,547.2	62.6	6.7	-106.23	-1,279.0	-327.5	2,096.0	2,029.5	66.53	31.503	
11,100.0	7,535.0	7,549.8	7,548.0	64.3	6.7	-106.86	-1,279.0	-327.5	2,196.0	2,128.0	68.00	32.293	
11,200.0	7,535.0	7,550.5	7,548.7	66.0	6.7	-107.48	-1,279.0	-327.5	2,295.9	2,226.5	69.46	33.056	
11,300.0	7,535.0	7,551.2	7,549.5	67.7	6.7	-108.09	-1,279.0	-327.5	2,395.9	2,325.0	70.90	33.792	
11,400.0	7,535.0	7,552.0	7,550.2	69.4	6.7	-108.69	-1,279.0	-327.5	2,495.9	2,423.5	72.33	34.505	
11,496.2	7,535.0	7,552.7	7,550.9	71.1	6.7	-109.25	-1,279.0	-327.5	2,592.0	2,518.3	73.70	35.170	
11,500.0	7,535.0	7,552.7	7,550.9	71.2	6.7	-109.27	-1,279.0	-327.5	2,595.8	2,522.1	73.75	35.196	
11,600.0	7,535.0	7,553.4	7,551.6	72.9	6.7	-109.85	-1,279.0	-327.5	2,695.8	2,620.6	75.16	35.867	
11,700.0	7,535.0	7,554.1	7,552.3	74.6	6.7	-110.41	-1,279.0	-327.5	2,795.8	2,719.2	76.56	36.519	
11,800.0	7,535.0	7,554.8	7,553.0	76.3	6.7	-110.96	-1,279.0	-327.5	2,895.7	2,817.8	77.94	37.153	
11,900.0	7,535.0	7,555.5	7,553.7	78.0	6.7	-111.50	-1,279.0	-327.5	2,995.7	2,916.4	79.31	37.770	
12,000.0	7,535.0	7,556.1	7,554.4	79.7	6.7	-112.03	-1,279.0	-327.5	3,095.7	3,015.0	80.68	38.372	
12,100.0	7,535.0	7,556.8	7,555.0	81.5	6.7	-112.54	-1,279.0	-327.5	3,195.7	3,113.6	82.02	38.960	
12,200.0	7,535.0	7,557.5	7,555.7	83.2	6.7	-113.05	-1,279.0	-327.5	3,295.6	3,212.3	83.36	39.533	
12,296.2	7,535.0	7,558.1	7,556.3	84.9	6.7	-113.53	-1,279.1	-327.5	3,391.8	3,307.2	84.64	40.073	
12,300.0	7,535.0	7,558.1	7,556.3	84.9	6.7	-113.56	-1,279.1	-327.5	3,395.6	3,311.8	83.79	40.523	
12,400.0	7,535.0	7,558.7	7,557.0	86.6	6.7	-114.23	-1,279.1	-327.5	3,495.6	3,409.6	86.05	40.623	
12,492.9	7,535.0	7,559.3	7,557.5	88.3	6.7	-114.96	-1,279.1	-327.5	3,588.5	3,494.7	93.79	38.259	
12,500.0	7,535.0	7,559.3	7,557.6	88.4	6.7	-114.97	-1,279.1	-327.5	3,595.5	3,501.6	93.91	38.286	
12,600.0	7,535.0	7,559.9	7,558.2	90.1	6.7	-115.66	-1,279.1	-327.5	3,695.4	3,599.8	95.58	38.662	
12,700.0	7,535.0	7,560.5	7,558.7	91.9	6.7	-116.34	-1,279.1	-327.4	3,795.3	3,698.1	97.25	39.026	
12,800.0	7,535.0	7,561.1	7,559.3	93.6	6.7	-117.01	-1,279.1	-327.4	3,895.2	3,796.3	98.92	39.378	
12,900.0	7,535.0	7,561.7	7,559.9	95.3	6.7	-117.67	-1,279.1	-327.4	3,995.1	3,894.5	100.58	39.719	
13,000.0	7,535.0	7,562.2	7,560.5	97.1	6.7	-118.32	-1,279.1	-327.4	4,095.0	3,992.7	102.25	40.049	
13,100.0	7,535.0	7,562.8	7,561.0	98.8	6.7	-118.96	-1,279.1	-327.4	4,194.9	4,091.0	103.91	40.370	
13,200.0	7,535.0	7,563.4	7,561.6	100.5	6.7	-119.59	-1,279.1	-327.4	4,294.8	4,189.2	105.57	40.681	
13,300.0	7,535.0	7,563.9	7,562.1	102.3	6.7	-120.21	-1,279.1	-327.4	4,394.7	4,287.5	107.23	40.983	
13,400.0	7,535.0	7,564.4	7,562.7	104.0	6.7	-120.82	-1,279.1	-327.4	4,494.6	4,385.8	108.89	41.276	
13,500.0	7,535.0	7,565.0	7,563.2	105.8	6.7	-121.42	-1,279.1	-327.4	4,594.6	4,484.0	110.55	41.561	
13,600.0	7,535.0	7,565.5	7,563.7	107.5	6.7	-122.01	-1,279.1	-327.4	4,694.5	4,582.3	112.20	41.839	
13,700.0	7,535.0	7,566.0	7,564.2	109.3	6.7	-122.59	-1,279.1	-327.4	4,794.4	4,680.6	113.86	42.109	
13,800.0	7,535.0	7,566.5	7,564.7	111.0	6.7	-123.16	-1,279.1	-327.4	4,894.3	4,778.8	115.51	42.371	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 12-26 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error: 0.0 ft
Survey Program: 100-Gyro													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	7,535.0	7,567.0	7,565.3	112.7	6.7	101.58	-1,279.1	-327.4	4,994.3	4,877.1	117.16	42.627	
14,000.0	7,535.0	7,567.5	7,565.8	114.5	6.7	101.74	-1,279.1	-327.4	5,094.2	4,975.4	118.81	42.877	
14,100.0	7,535.0	7,568.0	7,566.3	116.2	6.7	101.89	-1,279.1	-327.4	5,194.2	5,073.7	120.46	43.120	
14,200.0	7,535.0	7,568.5	7,566.7	118.0	6.7	102.05	-1,279.1	-327.4	5,294.1	5,172.0	122.10	43.357	
14,300.0	7,535.0	7,569.0	7,567.2	119.7	6.7	102.20	-1,279.1	-327.4	5,394.0	5,270.3	123.75	43.589	
14,400.0	7,535.0	7,569.5	7,567.7	121.5	6.7	102.34	-1,279.1	-327.4	5,494.0	5,368.6	125.39	43.815	
14,500.0	7,535.0	7,570.0	7,568.2	123.2	6.7	102.49	-1,279.1	-327.4	5,593.9	5,466.9	127.03	44.035	
14,600.0	7,535.0	7,570.4	7,568.6	124.9	6.7	102.63	-1,279.1	-327.4	5,693.9	5,565.2	128.67	44.251	
14,672.4	7,535.0	7,570.8	7,569.0	126.2	6.7	102.74	-1,279.1	-327.4	5,766.2	5,636.3	129.86	44.404	
14,672.9	7,535.0	7,570.8	7,569.0	126.2	6.7	102.74	-1,279.1	-327.4	5,766.7	5,636.9	129.87	44.405	



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 2-0-26 (EXISTING) - ENCANA WELL - SURVE												Offset Site Error: 0.0 ft			
Survey Program: 121-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	12.1	12.1	0.0	0.0	-170.53	-1,275.0	-212.6	1,292.6						
100.0	100.0	135.0	135.0	0.2	0.2	-170.52	-1,273.7	-212.8	1,291.6	1,291.2	0.37	3,507.490			
200.0	200.0	269.5	269.4	0.3	0.5	-170.45	-1,269.1	-213.4	1,288.3	1,287.5	0.79	1,626.915			
300.0	300.0	552.2	550.0	0.5	1.3	-170.47	-1,236.6	-207.6	1,276.7	1,275.0	1.65	773.438			
400.0	400.0	753.3	745.6	0.7	2.1	-170.69	-1,192.1	-195.5	1,253.8	1,251.3	2.50	501.757			
500.0	500.0	931.0	914.8	0.8	3.1	-170.96	-1,139.8	-181.4	1,223.0	1,219.6	3.41	358.392			
600.0	600.0	1,035.6	1,013.3	1.0	3.8	-171.15	-1,105.7	-172.2	1,189.4	1,185.4	4.05	293.772			
700.0	700.0	1,125.3	1,097.6	1.2	4.3	-171.32	-1,076.1	-164.3	1,155.5	1,150.9	4.62	249.991			
800.0	800.0	1,205.8	1,173.6	1.4	4.8	-171.43	-1,050.3	-158.4	1,122.6	1,117.5	5.15	217.905			
900.0	900.0	1,304.4	1,266.9	1.5	5.4	-171.57	-1,019.3	-151.0	1,090.5	1,084.8	5.76	189.337			
1,000.0	1,000.0	1,415.3	1,371.1	1.7	6.1	-171.79	-982.8	-141.7	1,056.6	1,050.1	6.43	164.222			
1,100.0	1,100.0	1,511.0	1,461.1	1.9	6.7	-172.01	-950.9	-133.5	1,022.4	1,015.4	7.03	145.359			
1,200.0	1,200.0	1,622.4	1,565.3	2.1	7.4	-120.46	-913.1	-123.1	987.9	982.9	4.97	198.968			
1,300.0	1,300.0	1,733.6	1,668.6	2.2	8.1	-121.27	-873.1	-112.9	952.3	946.9	5.38	176.939			
1,400.0	1,399.9	1,828.5	1,756.3	2.4	8.8	-122.10	-838.0	-104.7	916.6	910.8	5.77	158.737			
1,500.0	1,499.7	1,926.0	1,846.4	2.6	9.5	-123.01	-801.3	-97.3	881.2	875.1	6.19	142.429			
1,600.0	1,599.4	2,011.9	1,925.8	2.8	10.0	-123.92	-768.9	-91.4	847.1	840.5	6.59	128.604			
1,619.7	1,619.0	2,029.7	1,942.2	2.8	10.2	-124.11	-762.4	-90.3	840.6	834.0	6.67	126.046			
1,700.0	1,699.0	2,107.6	2,014.4	3.0	10.7	-124.72	-733.6	-85.7	814.4	807.4	7.01	116.185			
1,800.0	1,798.5	2,180.7	2,082.5	3.2	11.1	-125.34	-707.2	-81.4	782.9	775.5	7.39	105.941			
1,900.0	1,898.1	2,274.1	2,170.2	3.4	11.7	-126.23	-675.4	-75.3	753.4	745.5	7.85	95.971			
2,000.0	1,997.7	2,359.3	2,250.0	3.6	12.3	-127.18	-646.3	-69.0	724.0	715.7	8.31	87.082			
2,100.0	2,097.3	2,452.4	2,337.8	3.9	12.8	-128.28	-615.9	-62.2	696.3	687.5	8.83	78.856			
2,200.0	2,196.9	2,545.8	2,425.6	4.1	13.4	-129.50	-585.1	-55.1	668.5	659.1	9.38	71.290			
2,300.0	2,296.5	2,629.0	2,504.2	4.3	13.9	-130.64	-558.5	-49.1	642.1	632.2	9.92	64.761			
2,400.0	2,396.1	2,723.7	2,594.1	4.5	14.4	-132.12	-529.9	-41.3	617.8	607.3	10.56	58.523			
2,500.0	2,495.7	2,821.7	2,686.7	4.7	15.0	-133.84	-499.0	-32.6	592.8	581.5	11.27	52.610			
2,600.0	2,595.3	2,909.8	2,770.3	5.0	15.5	-135.41	-472.1	-25.7	569.0	557.1	11.95	47.618			
2,700.0	2,694.8	3,005.1	2,861.0	5.2	16.1	-137.23	-443.9	-18.2	546.9	534.1	12.71	43.033			
2,800.0	2,794.4	3,102.8	2,954.1	5.4	16.6	-139.09	-414.6	-12.1	524.6	511.1	13.50	38.862			
2,900.0	2,894.0	3,203.7	3,049.9	5.6	17.2	-141.33	-384.0	-4.6	502.8	488.4	14.44	34.815			
3,000.0	2,993.6	3,312.5	3,152.0	5.9	17.9	-144.43	-348.1	6.7	479.9	464.2	15.65	30.672			
3,100.0	3,093.2	3,409.3	3,242.3	6.1	18.5	-147.43	-314.5	15.9	456.1	439.3	16.82	27.121			
3,200.0	3,192.8	3,500.2	3,327.3	6.3	19.1	-150.42	-283.4	23.8	433.9	416.0	17.98	24.131			
3,300.0	3,292.4	3,590.3	3,412.0	6.5	19.7	-153.56	-253.5	31.4	414.1	394.9	19.20	21.563			
3,400.0	3,392.0	3,683.8	3,500.1	6.8	20.2	-157.12	-223.1	39.8	396.6	376.0	20.54	19.304			
3,500.0	3,491.6	3,783.6	3,594.0	7.0	20.8	-161.12	-190.8	47.8	380.5	358.5	21.99	17.307			
3,600.0	3,591.1	3,872.2	3,677.9	7.2	21.4	-164.73	-162.6	53.7	366.1	342.8	23.28	15.724			
3,700.0	3,690.7	3,967.5	3,768.4	7.5	21.9	-168.83	-133.6	60.7	355.0	330.3	24.71	14.370			
3,800.0	3,790.3	4,064.6	3,860.3	7.7	22.5	-173.41	-103.0	68.4	345.7	319.5	26.21	13.189			
3,900.0	3,889.9	4,158.7	3,949.1	7.9	23.1	-178.11	-73.0	76.0	338.6	311.0	27.66	12.242			
4,000.0	3,989.5	4,254.3	4,039.5	8.2	23.6	177.05	-43.0	83.6	334.5	305.4	29.07	11.507			
4,097.5	4,086.6	4,346.2	4,126.5	8.4	24.2	172.33	-14.2	91.0	333.0	302.6	30.35	10.971 CC			
4,100.0	4,089.1	4,348.5	4,128.7	8.4	24.2	172.20	-13.5	91.2	333.0	302.6	30.38	10.960 ES			
4,200.0	4,188.7	4,444.3	4,219.1	8.6	24.8	167.18	16.9	99.3	334.4	302.8	31.63	10.574			
4,300.0	4,288.3	4,540.3	4,309.8	8.9	25.4	162.17	47.7	107.4	338.4	305.7	32.75	10.332			
4,400.0	4,387.9	4,635.6	4,399.3	9.1	26.0	157.22	79.0	115.4	345.0	311.2	33.75	10.222 SF			
4,500.0	4,487.4	4,729.7	4,488.0	9.3	26.5	152.58	109.6	123.4	354.4	319.8	34.55	10.255			
4,600.0	4,587.0	4,825.3	4,578.9	9.6	27.0	148.56	137.9	131.2	366.1	330.9	35.19	10.404			
4,700.0	4,686.6	4,923.2	4,672.7	9.8	27.5	145.00	165.0	138.8	379.3	343.6	35.74	10.613			
4,800.0	4,786.2	5,031.7	4,777.2	10.0	28.1	141.59	193.4	145.1	392.0	355.8	36.21	10.824			
4,900.0	4,885.8	5,129.0	4,871.9	10.3	28.5	139.15	215.9	149.6	404.3	367.7	36.59	11.049			

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 2-0-26 (EXISTING) - ENCANA WELL - SURVE													Offset Site Error:	0.0 ft
Survey Program: 121-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	4,985.4	5,226.7	4,967.5	10.5	28.8	137.36	234.8	154.7	417.6	380.6	36.93	11.306		
5,100.0	5,085.0	5,332.9	5,072.4	10.7	29.1	136.08	251.3	159.4	430.1	392.8	37.28	11.537		
5,200.0	5,184.6	5,438.4	5,177.1	11.0	29.3	135.43	263.3	163.0	441.2	403.6	37.62	11.728		
5,300.0	5,284.2	5,543.0	5,281.4	11.2	29.5	135.34	271.0	165.6	451.0	413.0	37.98	11.875		
5,400.0	5,383.7	5,652.9	5,391.1	11.4	29.6	135.61	276.0	167.1	459.4	421.1	38.34	11.983		
5,500.0	5,483.3	5,756.9	5,495.1	11.7	29.7	136.25	277.4	166.9	465.9	427.2	38.69	12.039		
5,600.0	5,582.9	5,855.4	5,593.6	11.9	29.8	136.99	277.5	166.6	472.2	433.1	39.04	12.094		
5,700.0	5,682.5	5,955.0	5,693.2	12.1	29.8	137.77	277.1	166.5	478.7	439.3	39.39	12.154		
5,800.0	5,782.1	6,052.6	5,790.8	12.4	29.9	138.52	276.8	166.6	485.5	445.8	39.72	12.224		
5,900.0	5,881.7	6,153.6	5,891.8	12.6	29.9	139.30	276.1	166.8	492.6	452.5	40.05	12.300		
6,000.0	5,981.3	6,259.7	5,997.8	12.8	30.0	140.09	275.5	166.1	498.7	458.3	40.38	12.352		
6,100.0	6,080.9	6,360.7	6,098.9	13.1	30.0	140.73	275.6	164.5	504.2	463.4	40.70	12.386		
6,200.0	6,180.5	6,458.9	6,197.1	13.3	30.1	141.26	276.5	163.1	509.8	468.8	41.03	12.425		
6,300.0	6,280.0	6,558.9	6,297.1	13.5	30.2	141.71	278.1	161.8	515.6	474.3	41.36	12.468		
6,400.0	6,379.6	6,658.9	6,397.1	13.8	30.3	142.12	280.0	160.3	521.3	479.6	41.68	12.507		
6,500.0	6,479.2	6,761.0	6,499.1	14.0	30.4	142.51	282.1	158.8	527.0	485.0	42.01	12.545		
6,600.0	6,578.8	6,864.3	6,602.4	14.2	30.5	142.89	284.3	156.4	531.9	489.6	42.33	12.566		
6,700.0	6,678.4	6,961.2	6,699.2	14.5	30.6	143.31	285.7	154.1	536.7	494.1	42.62	12.593		
6,800.0	6,778.0	7,057.4	6,795.3	14.7	30.6	143.87	285.6	152.5	542.4	499.5	42.91	12.640		
6,900.0	6,877.6	7,160.9	6,898.9	14.9	30.7	144.44	285.8	150.9	548.2	505.0	43.21	12.687		
6,953.0	6,930.4	7,215.6	6,953.6	15.1	30.7	144.71	286.1	149.7	550.9	507.6	43.37	12.703		
7,000.0	6,977.2	7,263.5	7,001.5	15.1	30.8	-156.50	286.5	148.5	553.1	509.6	43.50	12.715		
7,050.0	7,027.0	7,312.5	7,050.4	15.2	30.8	-117.94	287.1	147.3	555.1	511.5	43.60	12.732		
7,100.0	7,076.2	7,360.3	7,098.2	15.2	30.9	-105.95	288.0	146.3	556.9	513.3	43.64	12.760		
7,150.0	7,124.6	7,407.4	7,145.3	15.3	30.9	-101.45	289.1	145.3	558.8	515.2	43.64	12.805		
7,200.0	7,171.8	7,453.1	7,190.9	15.2	31.0	-99.80	290.4	144.5	561.0	517.5	43.58	12.875		
7,250.0	7,217.4	7,498.2	7,236.0	15.2	31.0	-99.59	291.9	143.7	563.9	520.5	43.45	12.980		
7,300.0	7,261.1	7,541.4	7,279.2	15.2	31.1	-100.15	293.4	142.9	567.8	524.6	43.26	13.126		
7,350.0	7,302.5	7,582.4	7,320.2	15.2	31.1	-101.09	294.8	142.1	573.2	530.2	43.03	13.323		
7,400.0	7,341.3	7,620.8	7,358.6	15.1	31.2	-102.17	296.2	141.4	580.5	537.7	42.77	13.572		
7,450.0	7,377.2	7,656.2	7,393.9	15.1	31.2	-103.17	297.4	140.6	590.1	547.5	42.53	13.874		
7,500.0	7,410.0	7,688.2	7,425.9	15.1	31.3	-103.92	298.6	139.9	602.4	560.0	42.35	14.222		
7,550.0	7,439.4	7,716.7	7,454.3	15.2	31.3	-104.29	299.6	139.2	617.7	575.4	42.28	14.607		
7,600.0	7,465.2	7,741.4	7,479.0	15.2	31.3	-104.17	300.4	138.6	636.1	593.7	42.36	15.015		
7,650.0	7,487.1	7,761.9	7,499.5	15.3	31.3	-103.41	301.1	138.1	657.6	615.0	42.62	15.430		
7,700.0	7,505.1	7,778.3	7,515.9	15.5	31.4	-101.96	301.7	137.7	682.3	639.2	43.06	15.845		
7,750.0	7,518.9	7,790.5	7,528.1	15.7	31.4	-99.73	302.1	137.4	709.8	666.1	43.64	16.265		
7,800.0	7,528.5	7,798.4	7,536.0	15.9	31.4	-96.68	302.3	137.2	739.8	695.5	44.28	16.708		
7,850.0	7,533.9	7,802.0	7,539.6	16.2	31.4	-92.78	302.5	137.1	772.0	727.2	44.85	17.215		
7,886.2	7,535.0	7,801.9	7,539.5	16.4	31.4	-89.45	302.5	137.1	796.4	751.3	45.11	17.654		
7,900.0	7,535.0	7,801.4	7,539.0	16.5	31.4	-89.41	302.4	137.2	806.0	760.8	45.22	17.825		
8,000.0	7,535.0	7,797.9	7,535.5	17.2	31.4	-89.06	302.3	137.2	878.4	832.4	46.05	19.077		
8,100.0	7,535.0	7,794.5	7,532.0	18.1	31.4	-88.72	302.2	137.3	955.8	908.8	47.02	20.328		
8,200.0	7,535.0	7,791.0	7,528.5	19.1	31.4	-88.37	302.1	137.4	1,037.1	989.0	48.11	21.555		
8,300.0	7,535.0	7,787.5	7,525.0	20.2	31.4	-88.03	302.0	137.5	1,121.4	1,072.1	49.31	22.744		
8,400.0	7,535.0	7,784.0	7,521.6	21.4	31.4	-87.69	301.9	137.6	1,208.1	1,157.5	50.58	23.887		
8,500.0	7,535.0	7,780.5	7,518.1	22.7	31.4	-87.34	301.7	137.7	1,296.7	1,244.8	51.91	24.979		
8,600.0	7,535.0	7,777.0	7,514.6	24.0	31.4	-87.00	301.6	137.8	1,386.8	1,333.5	53.30	26.020		
8,700.0	7,535.0	7,773.5	7,511.1	25.4	31.4	-86.65	301.5	137.8	1,478.2	1,423.5	54.73	27.009		
8,800.0	7,535.0	7,770.0	7,507.6	26.9	31.4	-86.31	301.4	137.9	1,570.6	1,514.4	56.19	27.950		
8,900.0	7,535.0	7,766.5	7,504.1	28.3	31.3	-85.97	301.3	138.0	1,663.9	1,606.3	57.69	28.843		
9,000.0	7,535.0	7,763.0	7,500.6	29.8	31.3	-85.63	301.1	138.1	1,758.0	1,698.8	59.21	29.692		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 2-0-26 (EXISTING) - ENCANA WELL - SURVE													Offset Site Error:	0.0 ft
Survey Program: 121-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
9,100.0	7,535.0	7,759.5	7,497.1	31.3	31.3	-85.28	301.0	138.2	1,852.6	1,791.9	60.74	30.499		
9,200.0	7,535.0	7,756.0	7,493.6	32.9	31.3	-84.94	300.9	138.3	1,947.8	1,885.5	62.30	31.267		
9,300.0	7,535.0	7,752.5	7,490.1	34.4	31.3	-84.60	300.8	138.4	2,043.4	1,979.6	63.86	31.999		
9,400.0	7,535.0	7,749.0	7,486.6	36.0	31.3	-84.26	300.7	138.4	2,139.5	2,074.0	65.44	32.696		
9,500.0	7,535.0	7,745.5	7,483.1	37.6	31.3	-83.92	300.5	138.5	2,235.8	2,168.8	67.02	33.361		
9,600.0	7,535.0	7,741.9	7,479.5	39.2	31.3	-83.56	300.4	138.6	2,332.5	2,263.9	68.61	33.998		
9,700.0	7,535.0	7,738.2	7,475.8	40.9	31.3	-83.21	300.3	138.7	2,429.5	2,359.2	70.20	34.607		
9,800.0	7,535.0	7,734.5	7,472.1	42.5	31.3	-82.85	300.2	138.8	2,526.6	2,454.8	71.80	35.191		
9,900.0	7,535.0	7,730.8	7,468.4	44.1	31.3	-82.49	300.0	138.9	2,624.0	2,550.6	73.39	35.752		
10,000.0	7,535.0	7,727.1	7,464.7	45.8	31.3	-82.13	299.9	139.0	2,721.6	2,646.6	74.99	36.291		
10,100.0	7,535.0	7,723.3	7,461.0	47.4	31.3	-81.77	299.8	139.1	2,819.3	2,742.7	76.59	36.809		
10,200.0	7,535.0	7,719.6	7,457.2	49.1	31.3	-81.41	299.7	139.1	2,917.2	2,839.0	78.19	37.308		
10,300.0	7,535.0	7,715.8	7,453.5	50.8	31.3	-81.05	299.5	139.2	3,015.2	2,935.4	79.79	37.790		
10,400.0	7,535.0	7,712.1	7,449.7	52.5	31.3	-80.69	299.4	139.3	3,113.3	3,031.9	81.38	38.255		
10,500.0	7,535.0	7,708.3	7,445.9	54.1	31.3	-80.33	299.3	139.4	3,211.6	3,128.6	82.98	38.705		
10,600.0	7,535.0	7,704.5	7,442.1	55.8	31.3	-79.97	299.1	139.5	3,309.9	3,225.3	84.56	39.141		
10,700.0	7,535.0	7,700.7	7,438.3	57.5	31.3	-79.61	299.0	139.6	3,408.3	3,322.2	86.15	39.563		
10,800.0	7,535.0	7,696.8	7,434.5	59.2	31.3	-79.25	298.9	139.7	3,506.9	3,419.1	87.73	39.973		
10,900.0	7,535.0	7,693.0	7,430.7	60.9	31.3	-78.88	298.7	139.8	3,605.5	3,516.2	89.31	40.372		
11,000.0	7,535.0	7,689.2	7,426.8	62.6	31.3	-78.52	298.6	139.9	3,704.1	3,613.3	90.88	40.759		
11,100.0	7,535.0	7,685.3	7,423.0	64.3	31.3	-78.16	298.5	139.9	3,802.9	3,710.4	92.44	41.137		
11,200.0	7,535.0	7,681.4	7,419.1	66.0	31.2	-77.80	298.3	140.0	3,901.7	3,807.7	94.00	41.506		
11,300.0	7,535.0	7,677.5	7,415.2	67.7	31.2	-77.43	298.2	140.1	4,000.5	3,905.0	95.56	41.866		
11,400.0	7,535.0	7,673.6	7,411.3	69.4	31.2	-77.07	298.0	140.2	4,099.4	4,002.3	97.10	42.217		
11,496.2	7,535.0	7,669.9	7,407.5	71.1	31.2	-76.72	297.9	140.3	4,194.6	4,096.0	98.58	42.548		
11,500.0	7,535.0	7,669.7	7,407.4	71.2	31.2	-76.71	297.9	140.3	4,198.4	4,099.8	98.64	42.561		
11,600.0	7,535.0	7,665.8	7,403.5	72.9	31.2	-76.34	297.8	140.4	4,297.4	4,197.2	100.18	42.898		
11,700.0	7,535.0	7,661.8	7,399.5	74.6	31.2	-75.98	297.6	140.5	4,396.4	4,294.7	101.70	43.229		
11,800.0	7,535.0	7,657.9	7,395.6	76.3	31.2	-75.62	297.5	140.6	4,495.5	4,392.3	103.22	43.553		
11,900.0	7,535.0	7,653.9	7,391.6	78.0	31.2	-75.25	297.4	140.6	4,594.6	4,489.9	104.73	43.872		
12,000.0	7,535.0	7,649.9	7,387.6	79.7	31.2	-74.89	297.2	140.7	4,693.8	4,587.6	106.23	44.186		
12,100.0	7,535.0	7,646.3	7,384.0	81.5	31.2	-74.56	297.1	140.8	4,793.0	4,685.2	107.74	44.488		
12,200.0	7,535.0	7,642.6	7,380.3	83.2	31.2	-74.23	296.9	140.9	4,892.2	4,783.0	109.24	44.785		
12,296.2	7,535.0	7,639.1	7,376.8	84.9	31.2	-73.91	296.8	141.0	4,987.6	4,877.0	110.67	45.066		
12,300.0	7,535.0	7,639.0	7,376.7	84.9	31.2	-73.73	296.8	141.0	4,991.4	4,880.8	110.66	45.107		
12,400.0	7,535.0	7,635.4	7,373.1	86.6	31.2	-66.82	296.7	141.1	5,090.9	4,982.7	108.25	47.031		
12,492.9	7,535.0	7,632.1	7,369.8	88.3	31.2	-53.35	296.6	141.1	5,183.6	5,086.6	96.94	53.470		
12,500.0	7,535.0	7,631.9	7,369.6	88.4	31.2	-53.31	296.6	141.1	5,190.7	5,093.7	97.00	53.513		
12,600.0	7,535.0	7,628.4	7,366.1	90.1	31.2	-52.77	296.4	141.2	5,290.5	5,192.7	97.76	54.118		
12,700.0	7,535.0	7,624.9	7,362.6	91.9	31.2	-52.25	296.3	141.3	5,390.3	5,291.8	98.50	54.723		
12,800.0	7,535.0	7,621.4	7,359.1	93.6	31.2	-51.73	296.2	141.3	5,490.2	5,391.0	99.23	55.328		
12,900.0	7,535.0	7,617.9	7,355.6	95.3	31.2	-51.22	296.1	141.4	5,590.0	5,490.1	99.94	55.933		
13,000.0	7,535.0	7,614.4	7,352.1	97.1	31.2	-50.72	295.9	141.5	5,689.9	5,589.3	100.64	56.538		
13,100.0	7,535.0	7,610.9	7,348.6	98.8	31.2	-50.22	295.8	141.6	5,789.8	5,688.4	101.32	57.143		
13,200.0	7,535.0	7,607.4	7,345.1	100.5	31.2	-49.74	295.7	141.6	5,889.6	5,787.6	101.99	57.749		
13,300.0	7,535.0	7,603.9	7,341.7	102.3	31.2	-49.25	295.6	141.7	5,989.5	5,886.8	102.64	58.355		
13,400.0	7,535.0	7,600.4	7,338.2	104.0	31.1	-48.78	295.4	141.8	6,089.3	5,986.1	103.28	58.962		
13,500.0	7,535.0	7,596.9	7,334.7	105.8	31.1	-48.32	295.3	141.9	6,189.2	6,085.3	103.90	59.569		
13,600.0	7,535.0	7,593.4	7,331.2	107.5	31.1	-47.86	295.2	141.9	6,289.1	6,184.6	104.51	60.177		
13,700.0	7,535.0	7,590.0	7,327.7	109.3	31.1	-47.40	295.1	142.0	6,389.0	6,283.9	105.11	60.785		
13,800.0	7,535.0	7,586.5	7,324.2	111.0	31.1	-46.96	294.9	142.1	6,488.8	6,383.1	105.69	61.394		
13,900.0	7,535.0	7,583.0	7,320.7	112.7	31.1	-46.52	294.8	142.1	6,588.7	6,482.4	106.26	62.004		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 2-0-26 (EXISTING) - ENCANA WELL - SURVE													Offset Site Error: 0.0 ft
Survey Program: 121-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	
14,000.0	7,535.0	7,579.5	7,317.3	114.5	31.1	-46.09	294.7	142.2	6,688.6	6,581.8	106.82	62.614	
14,100.0	7,535.0	7,576.0	7,313.8	116.2	31.1	-45.66	294.6	142.3	6,788.5	6,681.1	107.37	63.225	
14,200.0	7,535.0	7,572.5	7,310.3	118.0	31.1	-45.24	294.5	142.3	6,888.4	6,780.4	107.91	63.837	
14,300.0	7,535.0	7,569.0	7,306.8	119.7	31.1	-44.83	294.3	142.4	6,988.2	6,879.8	108.43	64.450	
14,400.0	7,535.0	7,565.6	7,303.3	121.5	31.1	-44.42	294.2	142.5	7,088.1	6,979.2	108.94	65.063	
14,500.0	7,535.0	7,562.1	7,299.9	123.2	31.1	-44.02	294.1	142.5	7,188.0	7,078.6	109.45	65.677	
14,600.0	7,535.0	7,558.6	7,296.4	124.9	31.1	-43.63	294.0	142.6	7,287.9	7,178.0	109.94	66.291	
14,672.4	7,535.0	7,556.1	7,293.9	126.2	31.1	-43.34	293.9	142.6	7,360.2	7,249.9	110.29	66.737	
14,672.9	7,535.0	7,556.1	7,293.8	126.2	31.1	-43.34	293.9	142.6	7,360.7	7,250.4	110.29	66.740	





# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 21-26 (EXISTING) - ENCANA WELL - GYRO												Offset Site Error: 0.0 ft			
Survey Program: 100-Gyro														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	21.7	21.7	0.0	0.0	102.74	-213.8	945.6	969.5						
100.0	100.0	131.3	131.2	0.2	0.1	102.70	-212.9	944.8	968.5	968.3	0.27	3,633.949			
200.0	200.0	231.5	231.4	0.3	0.2	102.64	-211.7	943.7	967.3	966.7	0.53	1,829.546			
300.0	300.0	330.2	330.2	0.5	0.3	102.64	-211.3	942.5	966.0	965.2	0.79	1,223.299			
400.0	400.0	427.0	427.0	0.7	0.4	102.60	-210.6	941.8	965.1	964.0	1.05	920.333			
500.0	500.0	527.7	527.7	0.8	0.5	102.53	-209.2	941.1	964.1	962.8	1.31	735.498			
600.0	600.0	624.2	624.1	1.0	0.5	102.45	-207.7	940.7	963.4	961.8	1.57	613.844			
687.2	687.2	706.2	706.2	1.2	0.6	102.39	-206.6	940.7	963.2	961.4	1.79	537.158 CC			
700.0	700.0	718.5	718.4	1.2	0.6	102.38	-206.5	940.8	963.2	961.3	1.83	527.437 ES			
800.0	800.0	814.0	813.9	1.4	0.7	102.33	-205.8	941.2	963.5	961.4	2.08	462.327			
900.0	900.0	910.5	910.4	1.5	0.8	102.29	-205.2	942.0	964.1	961.8	2.34	411.540			
1,000.0	1,000.0	1,000.0	999.9	1.7	0.9	102.26	-205.1	943.4	965.6	963.0	2.60	372.003			
1,100.0	1,100.0	1,097.2	1,097.1	1.9	1.0	102.27	-205.6	945.4	967.7	964.8	2.86	338.906			
1,200.0	1,200.0	1,193.1	1,193.0	2.1	1.0	154.52	-206.3	947.6	971.0	967.8	3.12	311.701			
1,300.0	1,300.0	1,294.0	1,293.8	2.2	1.1	154.58	-207.0	950.2	976.0	972.6	3.38	288.979			
1,400.0	1,399.9	1,395.1	1,394.9	2.4	1.2	154.68	-207.9	952.6	982.4	978.8	3.64	269.884			
1,500.0	1,499.7	1,503.8	1,503.5	2.6	1.3	154.85	-209.0	954.6	989.9	986.0	3.91	253.157			
1,600.0	1,599.4	1,606.4	1,606.1	2.8	1.4	155.05	-209.9	955.8	998.4	994.2	4.18	239.040			
1,619.7	1,619.0	1,626.3	1,626.0	2.8	1.4	155.09	-210.0	956.0	1,000.2	996.0	4.23	236.512			
1,700.0	1,699.0	1,707.2	1,706.9	3.0	1.5	155.28	-210.6	956.9	1,007.8	1,003.3	4.44	226.780			
1,800.0	1,798.5	1,806.5	1,806.3	3.2	1.6	155.53	-211.3	957.8	1,017.1	1,012.4	4.71	215.920			
1,900.0	1,898.1	1,900.0	1,899.7	3.4	1.7	155.75	-212.1	959.0	1,026.7	1,021.8	4.97	206.476			
2,000.0	1,997.7	2,010.5	2,010.2	3.6	1.8	156.00	-212.7	960.0	1,036.1	1,030.8	5.25	197.352			
2,100.0	2,097.3	2,106.4	2,106.2	3.9	1.8	156.20	-213.1	960.8	1,045.2	1,039.7	5.52	189.519			
2,200.0	2,196.9	2,212.0	2,211.7	4.1	1.9	156.44	-213.8	961.3	1,054.1	1,048.4	5.79	182.112			
2,300.0	2,296.5	2,309.9	2,309.6	4.3	2.0	156.65	-214.2	961.7	1,063.0	1,056.9	6.06	175.540			
2,400.0	2,396.1	2,419.8	2,419.5	4.5	2.1	156.86	-214.1	961.8	1,071.3	1,065.0	6.33	169.161			
2,500.0	2,495.7	2,522.4	2,522.1	4.7	2.2	157.03	-213.5	961.3	1,079.1	1,072.5	6.60	163.390			
2,600.0	2,595.3	2,629.8	2,629.5	5.0	2.3	157.23	-213.3	960.4	1,086.6	1,079.7	6.88	157.933			
2,700.0	2,694.8	2,738.4	2,738.1	5.2	2.4	157.43	-212.8	958.2	1,092.8	1,085.7	7.16	152.711			
2,800.0	2,794.4	2,835.4	2,835.1	5.4	2.5	157.58	-211.7	956.5	1,099.2	1,091.8	7.42	148.083			
2,900.0	2,894.0	2,937.4	2,937.1	5.6	2.6	157.72	-210.3	954.6	1,105.5	1,097.8	7.69	143.686			
3,000.0	2,993.6	3,040.1	3,039.7	5.9	2.7	157.88	-209.3	952.5	1,111.6	1,103.7	7.97	139.562			
3,100.0	3,093.2	3,139.5	3,139.1	6.1	2.7	158.03	-208.1	950.2	1,117.5	1,109.3	8.23	135.719			
3,200.0	3,192.8	3,235.6	3,235.2	6.3	2.8	158.14	-206.5	948.5	1,123.8	1,115.3	8.50	132.209			
3,300.0	3,292.4	3,341.5	3,341.0	6.5	2.9	158.23	-204.2	946.7	1,129.9	1,121.1	8.77	128.768			
3,400.0	3,392.0	3,443.8	3,443.3	6.8	3.0	158.30	-201.4	944.4	1,135.4	1,126.4	9.05	125.502			
3,500.0	3,491.6	3,539.9	3,539.3	7.0	3.1	158.37	-198.8	942.5	1,141.2	1,131.9	9.31	122.534			
3,600.0	3,591.1	3,644.4	3,643.7	7.2	3.2	158.44	-196.2	940.4	1,147.0	1,137.4	9.59	119.637			
3,700.0	3,690.7	3,745.8	3,745.0	7.5	3.3	158.54	-193.9	937.7	1,152.3	1,142.4	9.86	116.888			
3,800.0	3,790.3	3,841.8	3,841.1	7.7	3.4	158.65	-192.2	935.4	1,157.9	1,147.8	10.12	114.373			
3,900.0	3,889.9	3,941.4	3,940.6	7.9	3.4	158.77	-190.7	933.0	1,163.6	1,153.2	10.39	111.970			
4,000.0	3,989.5	4,046.8	4,046.0	8.2	3.5	158.88	-188.6	930.5	1,169.3	1,158.6	10.67	109.623			
4,100.0	4,089.1	4,153.6	4,152.7	8.4	3.6	159.00	-186.6	927.1	1,174.1	1,163.2	10.94	107.316			
4,200.0	4,188.7	4,255.0	4,254.0	8.6	3.7	159.13	-184.9	923.5	1,178.7	1,167.5	11.21	105.147			
4,300.0	4,288.3	4,356.6	4,355.5	8.9	3.8	159.25	-182.8	919.9	1,183.2	1,171.7	11.48	103.063			
4,400.0	4,387.9	4,455.0	4,453.8	9.1	3.9	159.34	-180.4	916.4	1,187.6	1,175.8	11.75	101.092			
4,500.0	4,487.4	4,552.1	4,550.8	9.3	4.0	159.42	-178.0	913.3	1,192.3	1,180.2	12.01	99.237			
4,600.0	4,587.0	4,650.0	4,648.6	9.6	4.1	159.50	-175.5	910.3	1,197.1	1,184.8	12.28	97.473			
4,700.0	4,686.6	4,751.3	4,749.9	9.8	4.2	159.60	-173.4	907.2	1,202.1	1,189.5	12.55	95.773			
4,800.0	4,786.2	4,852.2	4,850.7	10.0	4.3	159.66	-170.4	904.2	1,206.8	1,193.9	12.82	94.120			
4,900.0	4,885.8	4,959.3	4,957.7	10.3	4.4	159.77	-168.1	900.5	1,211.4	1,198.3	13.10	92.505			

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 21-26 (EXISTING) - ENCANA WELL - GYRO												Offset Site Error:	0.0 ft
Survey Program: 100-Gyro												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	4,985.4	5,066.4	5,064.6	10.5	4.5	159.89	-165.8	895.9	1,215.1	1,201.7	13.37	90.889	
5,100.0	5,085.0	5,164.5	5,162.7	10.7	4.6	160.00	-163.7	891.5	1,218.7	1,205.0	13.64	89.379	
5,200.0	5,184.6	5,257.0	5,255.1	11.0	4.6	160.09	-161.5	887.7	1,222.6	1,208.7	13.90	87.983	
5,300.0	5,284.2	5,355.5	5,353.5	11.2	4.7	160.21	-159.8	884.1	1,227.2	1,213.0	14.16	86.651	
5,400.0	5,383.7	5,461.1	5,459.0	11.4	4.8	160.28	-156.8	880.3	1,231.4	1,216.9	14.44	85.300	
5,500.0	5,483.3	5,559.9	5,557.6	11.7	4.9	160.37	-154.3	876.3	1,235.3	1,220.6	14.70	84.019	
5,600.0	5,582.9	5,655.9	5,653.6	11.9	5.0	160.45	-152.0	872.7	1,239.5	1,224.6	14.97	82.819	
5,700.0	5,682.5	5,751.3	5,748.9	12.1	5.1	160.54	-149.8	869.4	1,244.1	1,228.8	15.23	81.683	
5,800.0	5,782.1	5,843.9	5,841.4	12.4	5.2	160.61	-147.7	866.6	1,249.1	1,233.6	15.49	80.628	
5,900.0	5,881.7	5,938.2	5,935.7	12.6	5.3	160.71	-146.0	864.3	1,254.7	1,238.9	15.75	79.644	
6,000.0	5,981.3	6,031.8	6,029.2	12.8	5.4	160.79	-144.4	862.2	1,260.6	1,244.5	16.02	78.708	
6,100.0	6,080.9	6,121.6	6,119.0	13.1	5.4	160.86	-142.7	861.2	1,267.5	1,251.2	16.27	77.878	
6,200.0	6,180.5	6,236.4	6,233.8	13.3	5.5	160.91	-139.8	859.4	1,273.7	1,257.2	16.56	76.931	
6,300.0	6,280.0	6,336.1	6,333.4	13.5	5.6	160.95	-136.9	857.5	1,279.6	1,262.7	16.83	76.049	
6,400.0	6,379.6	6,437.7	6,434.9	13.8	5.7	161.00	-134.2	855.6	1,285.5	1,268.4	17.10	75.195	
6,500.0	6,479.2	6,544.8	6,541.9	14.0	5.8	161.06	-131.4	853.0	1,290.9	1,273.5	17.37	74.318	
6,600.0	6,578.8	6,646.9	6,644.0	14.2	5.9	161.09	-128.1	850.3	1,296.0	1,278.3	17.64	73.463	
6,700.0	6,678.4	6,753.6	6,750.5	14.5	6.0	161.10	-124.1	847.5	1,300.9	1,283.0	17.92	72.604	
6,800.0	6,778.0	6,861.4	6,858.3	14.7	6.1	161.15	-120.6	843.6	1,305.0	1,286.8	18.19	71.730	
6,900.0	6,877.6	6,967.2	6,963.9	14.9	6.2	161.24	-118.0	839.0	1,308.7	1,290.2	18.46	70.878	
6,953.0	6,930.4	7,024.8	7,021.5	15.1	6.3	161.31	-116.8	836.2	1,310.4	1,291.8	18.61	70.422	
7,000.0	6,977.2	7,076.9	7,073.5	15.1	6.3	-140.10	-115.7	833.4	1,311.1	1,292.4	18.72	70.026	
7,050.0	7,027.0	7,129.0	7,125.5	15.2	6.4	-101.61	-114.6	830.5	1,310.1	1,291.3	18.84	69.550	
7,100.0	7,076.2	7,178.2	7,174.6	15.2	6.4	-89.55	-113.2	827.8	1,307.7	1,288.7	18.94	69.026	
7,150.0	7,124.6	7,229.8	7,226.0	15.3	6.5	-84.92	-111.7	825.0	1,303.8	1,284.7	19.05	68.434	
7,200.0	7,171.8	7,282.7	7,278.9	15.2	6.5	-83.14	-110.5	821.8	1,298.4	1,279.3	19.16	67.770	
7,250.0	7,217.4	7,329.3	7,325.4	15.2	6.6	-82.70	-109.5	818.7	1,291.9	1,272.6	19.26	67.081	
7,300.0	7,261.1	7,371.4	7,367.3	15.2	6.6	-83.05	-108.4	816.0	1,284.5	1,265.1	19.35	66.379	
7,350.0	7,302.5	7,411.2	7,407.1	15.2	6.6	-83.93	-107.2	813.5	1,276.6	1,257.2	19.44	65.665	
7,400.0	7,341.3	7,449.3	7,445.1	15.1	6.7	-85.16	-106.0	811.2	1,268.5	1,249.0	19.53	64.949	
7,450.0	7,377.2	7,484.5	7,480.1	15.1	6.7	-86.58	-105.0	809.0	1,260.4	1,240.8	19.62	64.245	
7,500.0	7,410.0	7,515.4	7,511.0	15.1	6.7	-88.04	-104.1	807.1	1,252.7	1,233.0	19.71	63.564	
7,550.0	7,439.4	7,541.9	7,537.4	15.2	6.8	-89.44	-103.2	805.5	1,245.8	1,226.0	19.80	62.904	
7,600.0	7,465.2	7,564.7	7,560.2	15.2	6.8	-90.71	-102.4	804.2	1,239.9	1,219.9	19.92	62.251	
7,650.0	7,487.1	7,583.7	7,579.1	15.3	6.8	-91.78	-101.8	803.1	1,235.3	1,215.2	20.06	61.592	
7,700.0	7,505.1	7,600.0	7,595.4	15.5	6.8	-92.66	-101.1	802.1	1,232.2	1,212.0	20.23	60.909	
7,750.0	7,518.9	7,611.3	7,606.7	15.7	6.8	-93.19	-100.7	801.5	1,231.0	1,210.5	20.45	60.199	
7,759.8	7,521.1	7,613.2	7,608.6	15.7	6.8	-93.27	-100.6	801.4	1,230.9	1,210.4	20.50	60.044	
7,800.0	7,528.5	7,619.4	7,614.8	15.9	6.8	-93.44	-100.4	801.0	1,231.5	1,210.8	20.71	59.455	
7,850.0	7,533.9	7,623.0	7,618.3	16.2	6.9	-93.31	-100.2	800.8	1,234.1	1,213.1	21.03	58.694	
7,886.2	7,535.0	7,622.6	7,617.9	16.4	6.9	-92.98	-100.3	800.9	1,237.1	1,215.9	21.28	58.144	
7,900.0	7,535.0	7,622.0	7,617.3	16.5	6.8	-92.95	-100.3	800.9	1,238.6	1,217.2	21.38	57.933	
8,000.0	7,535.0	7,617.6	7,613.0	17.2	6.8	-92.75	-100.5	801.1	1,253.5	1,231.3	22.21	56.431	
8,100.0	7,535.0	7,613.3	7,608.7	18.1	6.8	-92.54	-100.6	801.4	1,276.0	1,252.8	23.19	55.023	
8,200.0	7,535.0	7,609.0	7,604.3	19.1	6.8	-92.34	-100.8	801.6	1,305.9	1,281.6	24.29	53.762	
8,300.0	7,535.0	7,604.7	7,600.0	20.2	6.8	-92.14	-101.0	801.9	1,342.5	1,317.0	25.49	52.670	
8,400.0	7,535.0	7,600.4	7,595.8	21.4	6.8	-91.94	-101.1	802.1	1,385.4	1,358.6	26.77	51.753	
8,500.0	7,535.0	7,600.0	7,595.4	22.7	6.8	-91.93	-101.1	802.1	1,434.0	1,405.8	28.12	50.994	
8,600.0	7,535.0	7,600.0	7,595.4	24.0	6.8	-91.93	-101.1	802.1	1,487.7	1,458.1	29.53	50.385	
8,700.0	7,535.0	7,589.9	7,585.4	25.4	6.8	-91.46	-101.5	802.7	1,546.0	1,515.0	30.97	49.918	
8,800.0	7,535.0	7,586.6	7,582.0	26.9	6.8	-91.30	-101.7	802.9	1,608.4	1,575.9	32.46	49.554	
8,900.0	7,535.0	7,583.3	7,578.7	28.3	6.8	-91.15	-101.8	803.1	1,674.4	1,640.4	33.98	49.282	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 21-26 (EXISTING) - ENCANA WELL - GYRO												Offset Site Error: 0.0 ft	
Survey Program: 100-Gyro												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	7,535.0	7,580.1	7,575.5	29.8	6.8	-91.00	-101.9	803.3	1,743.7	1,708.2	35.52	49.089	
9,100.0	7,535.0	7,576.9	7,572.3	31.3	6.8	-90.85	-102.0	803.4	1,815.8	1,778.7	37.09	48.958	
9,200.0	7,535.0	7,573.8	7,569.2	32.9	6.8	-90.71	-102.1	803.6	1,890.5	1,851.8	38.68	48.880	
9,300.0	7,535.0	7,570.7	7,566.2	34.4	6.8	-90.57	-102.2	803.8	1,967.4	1,927.1	40.28	48.843	
9,400.0	7,535.0	7,567.7	7,563.1	36.0	6.8	-90.43	-102.3	804.0	2,046.3	2,004.4	41.90	48.840 SF	
9,500.0	7,535.0	7,564.7	7,560.2	37.6	6.8	-90.29	-102.4	804.2	2,127.0	2,083.5	43.53	48.865	
9,600.0	7,535.0	7,561.8	7,557.2	39.2	6.8	-90.15	-102.5	804.3	2,209.3	2,164.1	45.17	48.911	
9,700.0	7,535.0	7,558.9	7,554.4	40.9	6.8	-90.02	-102.6	804.5	2,292.9	2,246.1	46.82	48.973	
9,800.0	7,535.0	7,556.0	7,551.5	42.5	6.8	-89.89	-102.7	804.7	2,377.8	2,329.3	48.48	49.050	
9,900.0	7,535.0	7,553.2	7,548.7	44.1	6.8	-89.76	-102.8	804.8	2,463.9	2,413.7	50.14	49.136	
10,000.0	7,535.0	7,550.5	7,546.0	45.8	6.8	-89.63	-102.9	805.0	2,550.9	2,499.1	51.82	49.231	
10,100.0	7,535.0	7,547.8	7,543.3	47.4	6.8	-89.50	-103.0	805.2	2,638.9	2,585.4	53.49	49.331	
10,200.0	7,535.0	7,545.1	7,540.6	49.1	6.8	-89.38	-103.1	805.3	2,727.7	2,672.5	55.18	49.436	
10,300.0	7,535.0	7,542.5	7,538.0	50.8	6.8	-89.26	-103.2	805.5	2,817.2	2,760.4	56.86	49.544	
10,400.0	7,535.0	7,539.9	7,535.4	52.5	6.8	-89.14	-103.3	805.6	2,907.5	2,848.9	58.55	49.654	
10,500.0	7,535.0	7,537.3	7,532.8	54.1	6.8	-89.02	-103.4	805.8	2,998.3	2,938.1	60.25	49.765	
10,600.0	7,535.0	7,534.8	7,530.3	55.8	6.8	-88.90	-103.5	805.9	3,089.7	3,027.8	61.95	49.876	
10,700.0	7,535.0	7,532.3	7,527.9	57.5	6.8	-88.79	-103.5	806.1	3,181.6	3,118.0	63.65	49.987	
10,800.0	7,535.0	7,529.9	7,525.4	59.2	6.8	-88.67	-103.6	806.2	3,274.0	3,208.7	65.35	50.098	
10,900.0	7,535.0	7,527.4	7,523.0	60.9	6.8	-88.56	-103.7	806.4	3,366.8	3,299.8	67.06	50.208	
11,000.0	7,535.0	7,525.1	7,520.6	62.6	6.8	-88.45	-103.8	806.5	3,460.1	3,391.3	68.77	50.316	
11,100.0	7,535.0	7,522.7	7,518.3	64.3	6.8	-88.34	-103.8	806.7	3,553.7	3,483.2	70.48	50.423	
11,200.0	7,535.0	7,520.4	7,516.0	66.0	6.7	-88.24	-103.9	806.8	3,647.6	3,575.4	72.19	50.528	
11,300.0	7,535.0	7,518.1	7,513.7	67.7	6.7	-88.13	-104.0	806.9	3,741.8	3,667.9	73.90	50.632	
11,400.0	7,535.0	7,515.9	7,511.5	69.4	6.7	-88.03	-104.0	807.1	3,836.3	3,760.7	75.62	50.734	
11,496.2	7,535.0	7,500.0	7,495.6	71.1	6.7	-87.30	-104.5	808.1	3,927.5	3,850.3	77.22	50.859	
11,500.0	7,535.0	7,500.0	7,495.6	71.2	6.7	-87.30	-104.5	808.1	3,931.2	3,853.9	77.29	50.862	
11,600.0	7,535.0	7,500.0	7,495.6	72.9	6.7	-87.30	-104.5	808.1	4,026.2	3,947.2	79.01	50.956	
11,700.0	7,535.0	7,500.0	7,495.6	74.6	6.7	-87.30	-104.5	808.1	4,121.5	4,040.7	80.74	51.048	
11,800.0	7,535.0	7,500.0	7,495.6	76.3	6.7	-87.30	-104.5	808.1	4,217.0	4,134.5	82.46	51.137	
11,900.0	7,535.0	7,500.0	7,495.6	78.0	6.7	-87.30	-104.5	808.1	4,312.7	4,228.5	84.19	51.225	
12,000.0	7,535.0	7,500.0	7,495.6	79.7	6.7	-87.30	-104.5	808.1	4,408.5	4,322.6	85.92	51.310	
12,100.0	7,535.0	7,500.0	7,495.6	81.5	6.7	-87.30	-104.5	808.1	4,504.6	4,417.0	87.65	51.394	
12,200.0	7,535.0	7,498.1	7,493.7	83.2	6.7	-87.21	-104.6	808.2	4,600.8	4,511.5	89.37	51.480	
12,296.2	7,535.0	7,494.6	7,490.2	84.9	6.7	-87.05	-104.7	808.4	4,693.5	4,602.5	91.02	51.565	
12,300.0	7,535.0	7,494.4	7,490.1	84.9	6.7	-87.03	-104.7	808.4	4,697.2	4,606.1	91.10	51.564	
12,400.0	7,535.0	7,490.8	7,486.5	86.6	6.7	-86.39	-104.8	808.6	4,794.2	4,701.3	92.97	51.566	
12,492.9	7,535.0	7,487.7	7,483.4	88.3	6.7	-85.60	-104.9	808.8	4,885.2	4,790.6	94.60	51.641	
12,500.0	7,535.0	7,487.5	7,483.2	88.4	6.7	-85.58	-104.9	808.8	4,892.1	4,797.4	94.72	51.649	
12,600.0	7,535.0	7,484.3	7,479.9	90.1	6.7	-85.38	-105.0	809.0	4,990.4	4,893.9	96.42	51.755	
12,700.0	7,535.0	7,481.0	7,476.7	91.9	6.7	-85.18	-105.1	809.2	5,088.7	4,990.5	98.13	51.858	
12,800.0	7,535.0	7,477.7	7,473.4	93.6	6.7	-84.98	-105.2	809.4	5,187.1	5,087.2	99.83	51.960	
12,900.0	7,535.0	7,474.4	7,470.0	95.3	6.7	-84.77	-105.3	809.7	5,285.5	5,184.0	101.53	52.059	
13,000.0	7,535.0	7,471.0	7,466.7	97.1	6.7	-84.57	-105.3	809.9	5,384.0	5,280.8	103.23	52.157	
13,100.0	7,535.0	7,467.6	7,463.3	98.8	6.7	-84.36	-105.4	810.1	5,482.5	5,377.6	104.92	52.253	
13,200.0	7,535.0	7,464.2	7,459.9	100.5	6.7	-84.15	-105.6	810.3	5,581.1	5,474.5	106.62	52.348	
13,300.0	7,535.0	7,460.8	7,456.5	102.3	6.7	-83.94	-105.7	810.5	5,679.8	5,571.5	108.31	52.441	
13,400.0	7,535.0	7,457.3	7,453.0	104.0	6.7	-83.73	-105.8	810.7	5,778.5	5,668.5	110.00	52.533	
13,500.0	7,535.0	7,453.8	7,449.5	105.8	6.7	-83.51	-105.9	810.9	5,877.2	5,765.5	111.68	52.624	
13,600.0	7,535.0	7,450.2	7,446.0	107.5	6.7	-83.30	-106.0	811.1	5,976.0	5,862.6	113.37	52.713	
13,700.0	7,535.0	7,446.7	7,442.4	109.3	6.7	-83.08	-106.1	811.4	6,074.8	5,959.7	115.05	52.802	
13,800.0	7,535.0	7,443.1	7,438.9	111.0	6.7	-82.86	-106.2	811.6	6,173.6	6,056.9	116.73	52.890	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 21-26 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-Gyro													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	7,535.0	7,439.5	7,435.2	112.7	6.7	-82.64	-106.3	811.8	6,272.5	6,154.1	118.40	52.977		
14,000.0	7,535.0	7,435.8	7,431.6	114.5	6.7	-82.42	-106.4	812.0	6,371.4	6,251.4	120.07	53.063		
14,100.0	7,535.0	7,432.1	7,427.9	116.2	6.7	-82.20	-106.5	812.3	6,470.4	6,348.6	121.74	53.149		
14,200.0	7,535.0	7,428.4	7,424.2	118.0	6.7	-81.98	-106.6	812.5	6,569.4	6,446.0	123.41	53.234		
14,300.0	7,535.0	7,424.7	7,420.5	119.7	6.7	-81.75	-106.8	812.7	6,668.4	6,543.3	125.07	53.319		
14,400.0	7,535.0	7,420.9	7,416.7	121.5	6.7	-81.52	-106.9	813.0	6,767.4	6,640.7	126.72	53.403		
14,500.0	7,535.0	7,417.1	7,412.9	123.2	6.6	-81.29	-107.0	813.2	6,866.5	6,738.1	128.38	53.487		
14,600.0	7,535.0	7,413.2	7,409.0	124.9	6.6	-81.06	-107.1	813.4	6,965.6	6,835.5	130.02	53.571		
14,672.4	7,535.0	7,410.4	7,406.2	126.2	6.6	-80.89	-107.2	813.6	7,037.3	6,906.1	131.21	53.632		
14,672.9	7,535.0	7,410.4	7,406.2	126.2	6.6	-80.89	-107.2	813.6	7,037.8	6,906.6	131.22	53.632		



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 22-26 - DD - SURVEYS													Offset Site Error: 0.0 ft			
Survey Program: 123-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	10.3	10.3	0.0	0.0	-170.65	-1,276.8	-210.3	1,294.0							
100.0	100.0	112.8	112.8	0.2	0.2	-170.67	-1,276.8	-209.8	1,293.9	1,293.6	0.33	3,944.515				
200.0	200.0	299.3	299.1	0.3	0.5	-170.89	-1,271.2	-203.9	1,290.6	1,289.7	0.83	1,557.234				
300.0	300.0	395.2	394.5	0.5	0.8	-171.14	-1,265.6	-197.3	1,283.7	1,282.5	1.17	1,095.719				
400.0	400.0	483.4	482.4	0.7	1.0	-171.45	-1,261.4	-189.5	1,277.6	1,276.1	1.50	852.840				
500.0	500.0	567.2	565.5	0.8	1.2	-171.89	-1,258.4	-179.3	1,272.3	1,270.5	1.82	699.584				
600.0	600.0	637.0	634.5	1.0	1.4	-172.34	-1,257.8	-169.1	1,269.4	1,267.2	2.12	598.161				
652.3	652.3	665.2	662.3	1.1	1.5	-172.54	-1,258.2	-164.7	1,268.9	1,266.6	2.28	557.444				
700.0	700.0	694.1	690.8	1.2	1.6	-172.76	-1,259.0	-160.0	1,269.3	1,266.9	2.42	523.618				
800.0	800.0	759.5	755.1	1.4	1.8	-173.29	-1,262.4	-148.5	1,272.3	1,269.5	2.77	459.885				
900.0	900.0	822.0	816.2	1.5	2.0	-173.87	-1,267.1	-136.2	1,277.8	1,274.7	3.12	409.647				
1,000.0	1,000.0	903.2	895.2	1.7	2.4	-174.67	-1,274.9	-118.9	1,285.6	1,282.0	3.57	359.981				
1,100.0	1,100.0	973.6	963.3	1.9	2.7	-175.40	-1,283.2	-103.3	1,295.7	1,291.6	4.04	320.905				
1,200.0	1,200.0	1,056.5	1,043.0	2.1	3.1	-124.00	-1,294.6	-83.4	1,308.5	1,303.3	5.14	254.480				
1,300.0	1,300.0	1,152.9	1,135.8	2.2	3.5	-124.99	-1,308.0	-60.9	1,322.9	1,317.2	5.74	230.557				
1,400.0	1,399.9	1,247.5	1,227.1	2.4	4.0	-125.94	-1,321.0	-39.7	1,338.8	1,332.5	6.32	211.764				
1,500.0	1,499.7	1,332.4	1,308.7	2.6	4.4	-126.84	-1,333.0	-19.8	1,356.6	1,349.7	6.89	196.888				
1,600.0	1,599.4	1,422.0	1,394.4	2.8	4.9	-127.87	-1,346.2	2.7	1,376.6	1,369.1	7.48	184.028				
1,619.7	1,619.0	1,440.7	1,412.3	2.8	5.0	-128.09	-1,349.0	7.4	1,380.8	1,373.2	7.60	181.669				
1,700.0	1,699.0	1,513.9	1,482.4	3.0	5.4	-129.07	-1,359.8	25.8	1,398.1	1,390.0	8.08	172.969				
1,800.0	1,798.5	1,615.2	1,579.1	3.2	5.9	-130.41	-1,374.6	52.0	1,420.1	1,411.4	8.72	162.831				
1,900.0	1,898.1	1,696.9	1,657.1	3.4	6.4	-131.47	-1,386.2	73.1	1,442.6	1,433.3	9.27	155.598				
2,000.0	1,997.7	1,783.2	1,739.3	3.6	6.9	-132.58	-1,399.4	96.0	1,466.7	1,456.8	9.84	149.041				
2,100.0	2,097.3	1,886.6	1,837.6	3.9	7.5	-133.89	-1,414.5	124.1	1,490.9	1,480.5	10.48	142.280				
2,200.0	2,196.9	1,986.9	1,933.2	4.1	8.1	-135.13	-1,428.7	151.2	1,515.3	1,504.2	11.08	136.745				
2,300.0	2,296.5	2,083.3	2,025.3	4.3	8.6	-136.24	-1,442.0	176.3	1,539.8	1,528.1	11.64	132.277				
2,400.0	2,396.1	2,168.6	2,106.9	4.5	9.0	-137.17	-1,454.0	197.9	1,564.9	1,552.7	12.15	128.799				
2,500.0	2,495.7	2,267.3	2,201.3	4.7	9.6	-138.22	-1,468.2	223.1	1,590.8	1,578.1	12.70	125.307				
2,600.0	2,595.3	2,363.3	2,293.2	5.0	10.1	-139.21	-1,481.4	247.2	1,616.6	1,603.4	13.22	122.270				
2,700.0	2,694.8	2,448.5	2,374.8	5.2	10.6	-140.06	-1,493.3	268.8	1,643.0	1,629.3	13.70	119.946				
2,800.0	2,794.4	2,541.0	2,463.4	5.4	11.1	-140.94	-1,506.7	291.9	1,670.2	1,656.0	14.19	117.728				
2,900.0	2,894.0	2,631.3	2,549.8	5.6	11.6	-141.78	-1,519.6	314.3	1,697.7	1,683.0	14.67	115.760				
3,000.0	2,993.6	2,728.4	2,642.8	5.9	12.1	-142.67	-1,533.7	339.0	1,725.7	1,710.6	15.16	113.831				
3,100.0	3,093.2	2,843.3	2,752.8	6.1	12.7	-143.68	-1,549.3	367.7	1,753.3	1,737.6	15.68	111.808				
3,200.0	3,192.8	2,943.7	2,849.6	6.3	13.2	-144.47	-1,562.7	390.8	1,780.3	1,764.2	16.13	110.399				
3,300.0	3,292.4	3,066.0	2,967.7	6.5	13.8	-145.41	-1,577.7	419.0	1,806.6	1,789.9	16.66	108.431				
3,400.0	3,392.0	3,143.0	3,041.8	6.8	14.2	-146.03	-1,586.6	437.8	1,833.0	1,816.0	17.06	107.432				
3,500.0	3,491.6	3,204.9	3,101.3	7.0	14.5	-146.51	-1,594.6	452.8	1,861.0	1,843.6	17.41	106.890				
3,600.0	3,591.1	3,331.0	3,222.5	7.2	15.2	-147.44	-1,611.7	483.5	1,889.9	1,872.0	17.93	105.423				
3,700.0	3,690.7	3,415.7	3,304.1	7.5	15.6	-148.04	-1,622.2	503.8	1,917.7	1,899.4	18.32	104.690				
3,800.0	3,790.3	3,509.0	3,394.0	7.7	16.1	-148.67	-1,634.3	525.4	1,946.0	1,927.3	18.72	103.946				
3,900.0	3,889.9	3,620.3	3,501.4	7.9	16.7	-149.39	-1,648.3	550.9	1,974.1	1,954.9	19.17	102.998				
4,000.0	3,989.5	3,713.3	3,591.0	8.2	17.1	-150.01	-1,659.1	573.2	2,002.0	1,982.4	19.59	102.221				
4,100.0	4,089.1	3,811.8	3,685.9	8.4	17.6	-150.66	-1,670.4	597.1	2,030.1	2,010.1	20.00	101.489				
4,200.0	4,188.7	3,893.0	3,764.1	8.6	18.1	-151.20	-1,679.1	617.4	2,058.1	2,037.7	20.40	100.897				
4,300.0	4,288.3	3,967.2	3,835.1	8.9	18.5	-151.73	-1,687.0	637.3	2,087.1	2,066.4	20.78	100.421				
4,400.0	4,387.9	4,114.8	3,976.6	9.1	19.3	-152.71	-1,702.9	676.1	2,116.4	2,095.1	21.30	99.350				
4,500.0	4,487.4	4,269.6	4,126.7	9.3	20.0	-153.58	-1,717.8	710.9	2,143.1	2,121.3	21.79	98.374				
4,600.0	4,587.0	4,365.9	4,220.6	9.6	20.4	-154.06	-1,726.6	730.3	2,168.4	2,146.3	22.15	97.907				
4,700.0	4,686.6	4,462.8	4,480.4	9.8	21.2	-155.08	-1,745.9	771.5	2,190.4	2,167.7	22.70	96.495				
4,800.0	4,786.2	4,928.3	4,778.2	10.0	21.6	-155.71	-1,753.3	789.7	2,203.0	2,179.9	23.17	95.097				
4,900.0	4,885.8	5,032.0	4,881.8	10.3	21.7	-155.84	-1,753.4	791.0	2,212.0	2,188.6	23.43	94.417				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 22-26 - DD - SURVEYS													Offset Site Error: 0.0 ft			
Survey Program: 123-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	4,985.4	5,132.6	4,982.4	10.5	21.8	-155.93	-1,754.0	791.2	2,220.9	2,197.2	23.69	93.744				
5,100.0	5,085.0	5,236.9	5,086.8	10.7	21.9	-156.03	-1,754.5	791.3	2,229.7	2,205.7	23.96	93.056				
5,200.0	5,184.6	5,353.0	5,202.9	11.0	22.0	-156.13	-1,754.7	791.1	2,238.0	2,213.8	24.24	92.324				
5,300.0	5,284.2	5,466.3	5,316.1	11.2	22.0	-156.24	-1,754.0	790.6	2,245.6	2,221.1	24.52	91.570				
5,400.0	5,383.7	5,583.2	5,433.0	11.4	22.1	-156.35	-1,752.7	789.9	2,252.5	2,227.7	24.81	90.787				
5,500.0	5,483.3	5,681.4	5,531.2	11.7	22.2	-156.44	-1,751.1	789.3	2,259.2	2,234.1	25.09	90.044				
5,600.0	5,582.9	5,784.8	5,634.6	11.9	22.2	-156.55	-1,749.2	789.0	2,265.7	2,240.3	25.37	89.298				
5,700.0	5,682.5	5,884.4	5,734.1	12.1	22.3	-156.66	-1,747.3	788.6	2,272.2	2,246.5	25.65	88.572				
5,800.0	5,782.1	5,981.7	5,831.4	12.4	22.3	-156.76	-1,745.5	788.2	2,278.7	2,252.8	25.93	87.869				
5,900.0	5,881.7	6,076.2	5,925.9	12.6	22.4	-156.85	-1,744.0	787.8	2,285.4	2,259.2	26.21	87.201				
6,000.0	5,981.3	6,171.8	6,021.5	12.8	22.5	-156.94	-1,742.8	787.2	2,292.4	2,265.9	26.48	86.559				
6,100.0	6,080.9	6,266.4	6,116.1	13.1	22.5	-157.01	-1,742.1	786.1	2,299.5	2,272.8	26.75	85.954				
6,200.0	6,180.5	6,364.7	6,214.4	13.3	22.6	-157.06	-1,741.8	784.5	2,306.8	2,279.8	27.02	85.360				
6,300.0	6,280.0	6,462.0	6,311.7	13.5	22.6	-157.11	-1,741.7	782.7	2,314.1	2,286.8	27.30	84.775				
6,400.0	6,379.6	6,544.0	6,393.6	13.8	22.7	-157.15	-1,741.9	781.2	2,321.8	2,294.3	27.56	84.259				
6,500.0	6,479.2	6,611.0	6,460.6	14.0	22.8	-157.18	-1,742.7	780.2	2,330.6	2,302.8	27.80	83.830				
6,600.0	6,578.8	6,705.0	6,554.6	14.2	22.8	-157.21	-1,744.8	779.2	2,340.3	2,312.2	28.07	83.373				
6,700.0	6,678.4	6,800.0	6,649.6	14.5	22.9	-157.23	-1,747.3	777.8	2,350.2	2,321.9	28.34	82.937				
6,800.0	6,778.0	6,894.0	6,743.5	14.7	23.0	-157.27	-1,749.6	777.2	2,360.5	2,331.8	28.62	82.471				
6,900.0	6,877.6	7,052.6	6,902.1	14.9	23.2	-157.43	-1,750.1	778.8	2,369.6	2,340.6	29.00	81.723				
6,953.0	6,930.4	7,117.9	6,967.4	15.1	23.2	-157.51	-1,749.2	779.0	2,373.5	2,344.4	29.17	81.381				
7,000.0	6,977.2	7,166.4	7,015.9	15.1	23.3	-98.94	-1,748.6	778.9	2,375.2	2,345.8	29.37	80.874				
7,050.0	7,027.0	7,217.1	7,066.6	15.2	23.3	-60.36	-1,748.1	778.6	2,373.3	2,343.9	29.38	80.785				
7,100.0	7,076.2	7,267.2	7,116.7	15.2	23.4	-48.12	-1,747.7	778.0	2,367.5	2,338.3	29.18	81.129				
7,150.0	7,124.6	7,307.5	7,157.0	15.3	23.4	-43.16	-1,747.5	777.5	2,358.0	2,329.2	28.80	81.884				
7,200.0	7,171.8	7,346.0	7,195.5	15.2	23.4	-40.97	-1,747.3	777.1	2,345.0	2,316.7	28.25	83.015				
7,250.0	7,217.4	7,384.5	7,234.0	15.2	23.5	-40.20	-1,747.2	777.0	2,328.6	2,301.0	27.57	84.466				
7,300.0	7,261.1	7,422.8	7,272.3	15.2	23.5	-40.36	-1,747.2	777.0	2,308.9	2,282.1	26.80	86.139				
7,350.0	7,302.5	7,460.0	7,309.5	15.2	23.5	-41.24	-1,747.1	777.1	2,286.1	2,260.1	26.02	87.877				
7,400.0	7,341.3	7,503.3	7,352.8	15.1	23.6	-42.85	-1,747.0	777.4	2,260.3	2,235.1	25.29	89.387				
7,450.0	7,377.2	7,544.2	7,393.7	15.1	23.6	-45.12	-1,746.8	777.6	2,231.7	2,207.0	24.72	90.270				
7,500.0	7,410.0	7,577.2	7,426.7	15.1	23.6	-47.94	-1,746.6	777.7	2,200.5	2,176.1	24.43	90.088				
7,550.0	7,439.4	7,605.5	7,455.0	15.2	23.7	-51.41	-1,746.4	777.8	2,167.1	2,142.6	24.50	88.462				
7,600.0	7,465.2	7,630.2	7,479.7	15.2	23.7	-55.55	-1,746.2	777.9	2,131.8	2,106.8	24.99	85.296				
7,650.0	7,487.1	7,651.1	7,500.6	15.3	23.7	-60.40	-1,746.1	778.0	2,094.9	2,069.0	25.89	80.932				
7,700.0	7,505.1	7,668.0	7,517.5	15.5	23.7	-65.91	-1,746.0	778.1	2,056.8	2,029.7	27.05	76.023				
7,750.0	7,518.9	7,681.0	7,530.5	15.7	23.8	-72.00	-1,745.9	778.2	2,017.7	1,989.4	28.31	71.263				
7,800.0	7,528.5	7,690.0	7,539.5	15.9	23.8	-78.51	-1,745.9	778.3	1,978.0	1,948.5	29.45	67.168				
7,850.0	7,533.9	7,694.9	7,544.4	16.2	23.8	-85.20	-1,745.9	778.3	1,938.0	1,907.7	30.28	63.993				
7,886.2	7,535.0	7,695.8	7,545.3	16.4	23.8	-90.01	-1,745.8	778.3	1,909.1	1,878.5	30.65	62.292				
7,900.0	7,535.0	7,695.7	7,545.2	16.5	23.8	-90.01	-1,745.8	778.3	1,898.1	1,867.4	30.75	61.725				
8,000.0	7,535.0	7,695.3	7,544.8	17.2	23.8	-89.99	-1,745.9	778.3	1,819.7	1,788.1	31.59	57.603				
8,100.0	7,535.0	7,694.8	7,544.3	18.1	23.8	-89.96	-1,745.9	778.3	1,743.4	1,710.8	32.57	53.522				
8,200.0	7,535.0	7,694.3	7,543.8	19.1	23.8	-89.94	-1,745.9	778.3	1,669.7	1,636.0	33.68	49.578				
8,300.0	7,535.0	7,693.9	7,543.3	20.2	23.8	-89.92	-1,745.9	778.3	1,598.8	1,563.9	34.88	45.835				
8,400.0	7,535.0	7,693.4	7,542.9	21.4	23.8	-89.89	-1,745.9	778.3	1,531.2	1,495.0	36.17	42.336				
8,500.0	7,535.0	7,692.9	7,542.4	22.7	23.8	-89.87	-1,745.9	778.3	1,467.3	1,429.8	37.52	39.107				
8,600.0	7,535.0	7,692.4	7,541.9	24.0	23.8	-89.85	-1,745.9	778.3	1,407.6	1,368.6	38.93	36.160				
8,700.0	7,535.0	7,691.9	7,541.4	25.4	23.8	-89.82	-1,745.9	778.3	1,352.6	1,312.2	40.38	33.498				
8,800.0	7,535.0	7,691.5	7,540.9	26.9	23.8	-89.80	-1,745.9	778.3	1,303.0	1,261.2	41.87	31.122				
8,900.0	7,535.0	7,691.0	7,540.5	28.3	23.8	-89.77	-1,745.9	778.3	1,259.5	1,216.1	43.39	29.027				
9,000.0	7,535.0	7,690.5	7,540.0	29.8	23.8	-89.75	-1,745.9	778.3	1,222.5	1,177.6	44.94	27.205				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 22-26 - DD - SURVEYS													Offset Site Error: 0.0 ft			
Survey Program: 123-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	7,535.0	7,690.0	7,539.5	31.3	23.8	-89.73	-1,745.9	778.3	1,192.9	1,146.4	46.51	25.648				
9,200.0	7,535.0	7,689.5	7,539.0	32.9	23.8	-89.70	-1,745.9	778.3	1,171.0	1,122.9	48.10	24.346				
9,300.0	7,535.0	7,689.0	7,538.5	34.4	23.8	-89.68	-1,745.9	778.3	1,157.4	1,107.7	49.70	23.286				
9,400.0	7,535.0	7,688.5	7,538.0	36.0	23.8	-89.65	-1,745.9	778.3	1,152.4	1,101.0	51.32	22.453				
9,408.3	7,535.0	7,688.5	7,537.9	36.2	23.8	-89.65	-1,745.9	778.3	1,152.3	1,100.9	51.46	22.393	CC, ES			
9,500.0	7,535.0	7,688.0	7,537.5	37.6	23.8	-89.63	-1,745.9	778.3	1,156.0	1,103.0	52.96	21.829				
9,600.0	7,535.0	7,687.5	7,537.0	39.2	23.8	-89.60	-1,745.9	778.3	1,168.2	1,113.6	54.60	21.395				
9,700.0	7,535.0	7,687.0	7,536.5	40.9	23.8	-89.58	-1,745.9	778.3	1,188.7	1,132.4	56.25	21.131				
9,800.0	7,535.0	7,686.5	7,535.9	42.5	23.8	-89.55	-1,745.9	778.3	1,217.1	1,159.2	57.91	21.016	SF			
9,900.0	7,535.0	7,685.9	7,535.4	44.1	23.8	-89.52	-1,745.9	778.2	1,252.9	1,193.3	59.58	21.028				
10,000.0	7,535.0	7,685.4	7,534.9	45.8	23.8	-89.50	-1,745.9	778.2	1,295.4	1,234.1	61.26	21.147				
10,100.0	7,535.0	7,684.9	7,534.4	47.4	23.8	-89.47	-1,745.9	778.2	1,344.0	1,281.1	62.94	21.355				
10,200.0	7,535.0	7,684.4	7,533.9	49.1	23.8	-89.45	-1,745.9	778.2	1,398.1	1,333.5	64.62	21.635				
10,300.0	7,535.0	7,683.9	7,533.3	50.8	23.8	-89.42	-1,745.9	778.2	1,457.0	1,390.7	66.31	21.972				
10,400.0	7,535.0	7,683.3	7,532.8	52.5	23.8	-89.39	-1,745.9	778.2	1,520.3	1,452.3	68.01	22.355				
10,500.0	7,535.0	7,682.8	7,532.3	54.1	23.8	-89.37	-1,745.9	778.2	1,587.3	1,517.6	69.71	22.772				
10,600.0	7,535.0	7,682.3	7,531.7	55.8	23.8	-89.34	-1,745.9	778.2	1,657.7	1,586.3	71.41	23.215				
10,700.0	7,535.0	7,681.7	7,531.2	57.5	23.8	-89.31	-1,745.9	778.2	1,731.0	1,657.9	73.11	23.676				
10,800.0	7,535.0	7,681.2	7,530.7	59.2	23.8	-89.29	-1,745.9	778.2	1,806.8	1,732.0	74.82	24.149				
10,900.0	7,535.0	7,680.6	7,530.1	60.9	23.8	-89.26	-1,745.9	778.2	1,884.9	1,808.4	76.53	24.630				
11,000.0	7,535.0	7,680.1	7,529.6	62.6	23.8	-89.23	-1,745.9	778.2	1,965.0	1,886.8	78.24	25.114				
11,100.0	7,535.0	7,679.5	7,529.0	64.3	23.8	-89.20	-1,745.9	778.2	2,046.9	1,966.9	79.96	25.599				
11,200.0	7,535.0	7,679.0	7,528.5	66.0	23.8	-89.18	-1,745.9	778.2	2,130.3	2,048.6	81.68	26.082				
11,300.0	7,535.0	7,678.4	7,527.9	67.7	23.8	-89.15	-1,745.9	778.2	2,215.0	2,131.6	83.40	26.560				
11,400.0	7,535.0	7,677.8	7,527.3	69.4	23.8	-89.12	-1,745.9	778.2	2,301.0	2,215.9	85.12	27.034				
11,496.2	7,535.0	7,677.3	7,526.8	71.1	23.8	-89.09	-1,745.9	778.2	2,384.7	2,298.0	86.77	27.483				
11,500.0	7,535.0	7,677.3	7,526.8	71.2	23.8	-89.09	-1,745.9	778.2	2,388.1	2,301.2	86.84	27.500				
11,600.0	7,535.0	7,676.7	7,526.2	72.9	23.7	-89.07	-1,746.0	778.2	2,476.1	2,387.6	88.56	27.959				
11,700.0	7,535.0	7,676.1	7,525.6	74.6	23.7	-89.04	-1,746.0	778.2	2,565.1	2,474.8	90.29	28.410				
11,800.0	7,535.0	7,675.6	7,525.1	76.3	23.7	-89.01	-1,746.0	778.2	2,654.8	2,562.8	92.01	28.852				
11,900.0	7,535.0	7,675.0	7,524.5	78.0	23.7	-88.98	-1,746.0	778.2	2,745.2	2,651.5	93.74	29.285				
12,000.0	7,535.0	7,674.4	7,523.9	79.7	23.7	-88.95	-1,746.0	778.2	2,836.3	2,740.8	95.47	29.709				
12,100.0	7,535.0	7,673.8	7,523.3	81.5	23.7	-88.92	-1,746.0	778.2	2,928.0	2,830.8	97.20	30.123				
12,200.0	7,535.0	7,673.2	7,522.7	83.2	23.7	-88.89	-1,746.0	778.2	3,020.1	2,921.2	98.93	30.528				
12,296.2	7,535.0	7,672.7	7,522.1	84.9	23.7	-88.86	-1,746.0	778.2	3,109.3	3,008.7	100.59	30.909				
12,300.0	7,535.0	7,672.6	7,522.1	84.9	23.7	-88.86	-1,746.0	778.2	3,112.8	3,012.1	100.66	30.925				
12,400.0	7,535.0	7,672.0	7,521.5	86.6	23.7	-88.71	-1,746.0	778.2	3,206.6	3,104.3	102.26	31.358				
12,492.9	7,535.0	7,671.4	7,520.9	88.3	23.7	-88.54	-1,746.0	778.2	3,295.0	3,191.4	103.67	31.785				
12,500.0	7,535.0	7,671.4	7,520.9	88.4	23.7	-88.54	-1,746.0	778.2	3,301.8	3,198.0	103.79	31.813				
12,600.0	7,535.0	7,670.7	7,520.2	90.1	23.7	-88.50	-1,746.0	778.2	3,397.7	3,292.2	105.52	32.199				
12,700.0	7,535.0	7,670.1	7,519.6	91.9	23.7	-88.46	-1,746.0	778.2	3,493.9	3,386.6	107.26	32.575				
12,800.0	7,535.0	7,669.4	7,518.9	93.6	23.7	-88.42	-1,746.0	778.1	3,590.3	3,481.3	108.99	32.941				
12,900.0	7,535.0	7,668.8	7,518.3	95.3	23.7	-88.38	-1,746.0	778.1	3,686.8	3,576.1	110.73	33.297				
13,000.0	7,535.0	7,668.1	7,517.6	97.1	23.7	-88.34	-1,746.0	778.1	3,783.6	3,671.1	112.46	33.644				
13,100.0	7,535.0	7,667.4	7,516.9	98.8	23.7	-88.30	-1,746.0	778.1	3,880.5	3,766.3	114.20	33.981				
13,200.0	7,535.0	7,666.8	7,516.3	100.5	23.7	-88.26	-1,746.0	778.1	3,977.6	3,861.6	115.93	34.309				
13,300.0	7,535.0	7,666.1	7,515.6	102.3	23.7	-88.22	-1,746.0	778.1	4,074.8	3,957.1	117.67	34.629				
13,400.0	7,535.0	7,665.4	7,514.9	104.0	23.7	-88.17	-1,746.0	778.1	4,172.1	4,052.7	119.41	34.940				
13,500.0	7,535.0	7,664.7	7,514.2	105.8	23.7	-88.13	-1,746.0	778.1	4,269.6	4,148.4	121.14	35.244				
13,600.0	7,535.0	7,664.0	7,513.5	107.5	23.7	-88.09	-1,746.0	778.1	4,367.1	4,244.3	122.88	35.539				
13,700.0	7,535.0	7,663.3	7,512.8	109.3	23.7	-88.05	-1,746.0	778.1	4,464.8	4,340.2	124.62	35.828				
13,800.0	7,535.0	7,662.6	7,512.1	111.0	23.7	-88.01	-1,746.0	778.1	4,562.6	4,436.3	126.36	36.109				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 22-26 - DD - SURVEYS													Offset Site Error:	0.0 ft
Survey Program:		123-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	7,535.0	7,661.9	7,511.4	112.7	23.7	-87.96	-1,746.0	778.1	4,660.5	4,532.4	128.10	36.383		
14,000.0	7,535.0	7,661.2	7,510.7	114.5	23.7	-87.92	-1,746.0	778.1	4,758.5	4,628.6	129.83	36.650		
14,100.0	7,535.0	7,660.5	7,510.0	116.2	23.7	-87.88	-1,746.0	778.1	4,856.5	4,724.9	131.57	36.911		
14,200.0	7,535.0	7,659.8	7,509.3	118.0	23.7	-87.83	-1,746.0	778.1	4,954.6	4,821.3	133.31	37.166		
14,300.0	7,535.0	7,659.1	7,508.6	119.7	23.7	-87.79	-1,746.1	778.1	5,052.8	4,917.8	135.05	37.414		
14,400.0	7,535.0	7,658.4	7,507.8	121.5	23.7	-87.75	-1,746.1	778.1	5,151.1	5,014.3	136.79	37.657		
14,500.0	7,535.0	7,657.6	7,507.1	123.2	23.7	-87.70	-1,746.1	778.1	5,249.4	5,110.9	138.53	37.894		
14,600.0	7,535.0	7,656.9	7,506.4	124.9	23.7	-87.66	-1,746.1	778.1	5,347.8	5,207.6	140.27	38.125		
14,672.4	7,535.0	7,656.4	7,505.8	126.2	23.7	-87.63	-1,746.1	778.1	5,419.1	5,277.5	141.53	38.290		
14,672.9	7,535.0	7,656.3	7,505.8	126.2	23.7	-87.63	-1,746.1	778.1	5,419.6	5,278.0	141.54	38.291		



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 2-4-26 (EXISTING) - ENCANA WELL - SURVE												Offset Site Error: 0.0 ft			
Survey Program: 92-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	9.6	9.6	0.0	0.0	-170.14	-1,271.3	-221.0	1,290.4						
100.0	100.0	106.2	106.2	0.2	0.2	-170.10	-1,271.4	-221.8	1,290.6	1,290.3	0.31	4,099.399			
200.0	200.0	204.3	204.3	0.3	0.3	-170.06	-1,271.4	-222.9	1,290.9	1,290.2	0.66	1,953.955			
300.0	300.0	293.5	293.5	0.5	0.5	-170.03	-1,272.1	-223.6	1,291.7	1,290.8	0.99	1,304.108			
400.0	400.0	386.0	386.0	0.7	0.7	-170.01	-1,273.5	-224.2	1,293.3	1,292.0	1.33	974.749			
500.0	500.0	477.0	476.9	0.8	0.8	-170.01	-1,275.4	-224.6	1,295.5	1,293.8	1.66	779.452			
600.0	600.0	559.5	559.4	1.0	1.0	-170.07	-1,278.1	-223.8	1,298.6	1,296.6	1.99	653.705			
700.0	700.0	635.0	634.8	1.2	1.1	-170.15	-1,282.4	-222.7	1,303.8	1,301.5	2.31	565.617			
800.0	800.0	700.6	700.1	1.4	1.3	-170.23	-1,287.6	-221.8	1,311.1	1,308.5	2.62	501.371			
900.0	900.0	771.0	770.2	1.5	1.4	-170.33	-1,294.5	-220.5	1,320.6	1,317.6	2.95	447.897			
1,000.0	1,000.0	838.4	837.1	1.7	1.6	-170.48	-1,302.9	-218.6	1,332.4	1,329.1	3.29	404.702			
1,100.0	1,100.0	914.0	911.7	1.9	1.8	-170.68	-1,314.3	-215.8	1,346.6	1,342.9	3.68	366.094			
1,200.0	1,200.0	976.0	972.7	2.1	2.0	-118.50	-1,325.1	-213.2	1,363.4	1,359.6	3.79	359.929			
1,300.0	1,300.0	1,052.0	1,047.2	2.2	2.3	-118.66	-1,339.7	-209.4	1,382.9	1,378.8	4.12	335.870			
1,400.0	1,399.9	1,145.8	1,138.8	2.4	2.6	-118.99	-1,359.0	-203.3	1,404.4	1,399.9	4.50	312.240			
1,500.0	1,499.7	1,233.8	1,224.6	2.6	3.0	-119.38	-1,377.1	-196.1	1,426.8	1,421.9	4.87	292.895			
1,600.0	1,599.4	1,305.2	1,294.1	2.8	3.3	-119.65	-1,392.6	-191.1	1,451.3	1,446.1	5.22	278.132			
1,619.7	1,619.0	1,317.8	1,306.4	2.8	3.3	-119.70	-1,395.5	-190.2	1,456.5	1,451.2	5.28	275.612			
1,700.0	1,699.0	1,370.3	1,357.2	3.0	3.6	-120.09	-1,408.1	-186.2	1,478.6	1,473.0	5.56	266.040			
1,800.0	1,798.5	1,457.0	1,440.8	3.2	4.0	-120.75	-1,429.8	-179.0	1,507.2	1,501.3	5.95	253.227			
1,900.0	1,898.1	1,528.5	1,509.5	3.4	4.3	-121.28	-1,448.4	-172.9	1,537.1	1,530.7	6.31	243.546			
2,000.0	1,997.7	1,604.6	1,582.5	3.6	4.7	-121.82	-1,469.1	-166.6	1,568.2	1,561.6	6.68	234.713			
2,100.0	2,097.3	1,678.0	1,652.7	3.9	5.1	-122.34	-1,489.9	-160.5	1,600.6	1,593.6	7.05	227.046			
2,200.0	2,196.9	1,749.6	1,720.7	4.1	5.5	-122.85	-1,511.1	-153.8	1,634.5	1,627.1	7.42	220.350			
2,300.0	2,296.5	1,844.0	1,810.2	4.3	6.1	-123.54	-1,539.6	-144.2	1,669.1	1,661.3	7.84	212.951			
2,400.0	2,396.1	1,946.5	1,907.5	4.5	6.6	-124.25	-1,570.0	-133.7	1,703.4	1,695.1	8.27	205.978			
2,500.0	2,495.7	2,036.0	1,992.5	4.7	7.1	-124.85	-1,596.5	-124.6	1,737.8	1,729.2	8.67	200.490			
2,600.0	2,595.3	2,151.5	2,102.6	5.0	7.8	-125.55	-1,630.0	-114.0	1,771.7	1,762.6	9.11	194.462			
2,700.0	2,694.8	2,252.9	2,199.3	5.2	8.3	-126.17	-1,658.4	-103.8	1,805.0	1,795.5	9.53	189.486			
2,800.0	2,794.4	2,354.1	2,296.1	5.4	8.8	-126.75	-1,686.5	-93.9	1,838.1	1,828.2	9.93	185.047			
2,900.0	2,894.0	2,443.8	2,381.9	5.6	9.3	-127.25	-1,711.1	-85.2	1,871.0	1,860.7	10.32	181.359			
3,000.0	2,993.6	2,547.5	2,481.0	5.9	9.9	-127.80	-1,739.8	-75.0	1,904.4	1,893.7	10.72	177.624			
3,100.0	3,093.2	2,636.2	2,566.0	6.1	10.3	-128.26	-1,763.7	-66.6	1,937.1	1,926.0	11.09	174.617			
3,200.0	3,192.8	2,729.1	2,654.9	6.3	10.8	-128.70	-1,789.3	-58.1	1,970.6	1,959.1	11.46	171.884			
3,300.0	3,292.4	2,862.1	2,782.6	6.5	11.5	-129.30	-1,824.7	-46.8	2,003.1	1,991.2	11.91	168.232			
3,400.0	3,392.0	2,992.1	2,908.1	6.8	12.1	-129.91	-1,856.3	-33.9	2,033.5	2,021.2	12.35	164.663			
3,500.0	3,491.6	3,071.4	2,984.7	7.0	12.5	-130.26	-1,875.1	-26.4	2,063.7	2,051.0	12.69	162.576			
3,600.0	3,591.1	3,143.0	3,053.6	7.2	12.9	-130.57	-1,893.5	-19.8	2,095.5	2,082.5	13.02	160.897			
3,700.0	3,690.7	3,181.3	3,090.3	7.5	13.1	-130.72	-1,904.1	-16.2	2,128.9	2,115.6	13.29	160.135			
3,800.0	3,790.3	3,277.6	3,182.1	7.7	13.6	-131.10	-1,931.7	-7.8	2,164.0	2,150.4	13.66	158.455			
3,900.0	3,889.9	3,439.5	3,338.0	7.9	14.4	-131.64	-1,973.7	3.9	2,195.8	2,181.7	14.11	155.654			
4,000.0	3,989.5	3,518.0	3,413.8	8.2	14.8	-131.87	-1,993.7	8.6	2,227.6	2,213.2	14.43	154.358			
4,100.0	4,089.1	3,605.4	3,498.0	8.4	15.3	-132.15	-2,016.2	15.3	2,260.0	2,245.2	14.79	152.842			
4,200.0	4,188.7	3,694.0	3,583.1	8.6	15.7	-132.49	-2,039.1	24.2	2,292.6	2,277.4	15.15	151.365			
4,300.0	4,288.3	3,893.1	3,775.2	8.9	16.7	-133.38	-2,084.5	50.0	2,322.3	2,306.6	15.72	147.743			
4,400.0	4,387.9	3,986.0	3,865.1	9.1	17.1	-133.83	-2,103.7	63.5	2,350.9	2,334.8	16.10	146.059			
4,500.0	4,487.4	4,067.3	3,943.7	9.3	17.5	-134.19	-2,120.9	74.7	2,379.8	2,363.4	16.44	144.784			
4,600.0	4,587.0	4,229.7	4,101.7	9.6	18.1	-134.76	-2,154.3	91.5	2,407.9	2,391.0	16.89	142.594			
4,700.0	4,686.6	4,438.5	4,306.8	9.8	18.9	-135.27	-2,191.4	103.9	2,432.8	2,415.4	17.38	139.940			
4,800.0	4,786.2	4,792.9	4,659.1	10.0	19.6	-135.91	-2,227.0	113.5	2,448.4	2,430.3	18.08	135.421			
4,900.0	4,885.8	5,053.5	4,919.6	10.3	19.8	-136.28	-2,231.0	113.7	2,455.1	2,436.5	18.65	131.667			
5,000.0	4,985.4	5,149.1	5,015.2	10.5	19.9	-136.40	-2,230.3	112.7	2,460.8	2,441.9	18.98	129.622			

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 2-4-26 (EXISTING) - ENCANA WELL - SURVE										Offset Site Error: 0.0 ft	
Survey Program: 92-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	5,085.0	5,248.4	5,114.4	10.7	20.0	-136.51	-2,229.8	111.1	2,466.6	2,447.3	19.33	127.624	
5,200.0	5,184.6	5,345.0	5,211.0	11.0	20.0	-136.60	-2,229.4	108.9	2,472.5	2,452.8	19.67	125.723	
5,300.0	5,284.2	5,439.4	5,305.4	11.2	20.1	-136.67	-2,229.3	106.0	2,478.5	2,458.5	20.00	123.905	
5,400.0	5,383.7	5,534.7	5,400.7	11.4	20.2	-136.75	-2,229.4	103.5	2,484.7	2,464.4	20.34	122.134	
5,500.0	5,483.3	5,629.1	5,495.1	11.7	20.2	-136.84	-2,229.5	101.6	2,491.2	2,470.5	20.69	120.420	
5,600.0	5,582.9	5,721.3	5,587.2	11.9	20.3	-136.95	-2,229.7	100.5	2,497.9	2,476.8	21.03	118.785	
5,700.0	5,682.5	5,813.0	5,679.0	12.1	20.4	-137.07	-2,230.1	100.2	2,504.9	2,483.5	21.37	117.209	
5,800.0	5,782.1	5,907.5	5,773.5	12.4	20.5	-137.21	-2,230.7	100.4	2,512.2	2,490.5	21.72	115.670	
5,900.0	5,881.7	6,001.4	5,867.4	12.6	20.6	-137.35	-2,231.4	100.8	2,519.7	2,497.6	22.07	114.189	
6,000.0	5,981.3	6,091.4	5,957.4	12.8	20.7	-137.48	-2,232.4	101.4	2,527.5	2,505.1	22.41	112.795	
6,100.0	6,080.9	6,182.8	6,048.7	13.1	20.8	-137.62	-2,233.6	102.3	2,535.8	2,513.0	22.75	111.447	
6,200.0	6,180.5	6,278.0	6,143.9	13.3	20.9	-137.78	-2,235.1	103.7	2,544.2	2,521.1	23.10	110.117	
6,300.0	6,280.0	6,397.7	6,263.5	13.5	21.0	-137.98	-2,236.7	105.6	2,552.6	2,529.1	23.49	108.653	
6,400.0	6,379.6	6,509.1	6,375.0	13.8	21.2	-138.16	-2,237.3	106.8	2,560.1	2,536.2	23.87	107.252	
6,500.0	6,479.2	6,607.5	6,473.3	14.0	21.3	-138.31	-2,237.7	107.7	2,567.4	2,543.2	24.23	105.982	
6,600.0	6,578.8	6,706.0	6,571.9	14.2	21.4	-138.45	-2,238.3	108.2	2,574.8	2,550.3	24.58	104.751	
6,700.0	6,678.4	6,804.8	6,670.7	14.5	21.5	-138.58	-2,238.9	108.4	2,582.3	2,557.4	24.94	103.556	
6,800.0	6,778.0	6,904.9	6,770.8	14.7	21.6	-138.71	-2,239.6	108.3	2,589.8	2,564.5	25.30	102.384	
6,900.0	6,877.6	7,002.1	6,867.9	14.9	21.7	-138.83	-2,240.4	108.1	2,597.4	2,571.7	25.65	101.265	
6,953.0	6,930.4	7,058.1	6,923.9	15.1	21.7	-138.90	-2,240.8	108.0	2,601.3	2,575.5	25.84	100.656	
7,000.0	6,977.2	7,106.8	6,972.6	15.1	21.8	-80.39	-2,241.1	107.9	2,602.9	2,576.8	26.09	99.764	
7,050.0	7,027.0	7,157.4	7,023.3	15.2	21.8	-41.72	-2,241.5	107.7	2,600.4	2,574.2	26.21	99.204	
7,100.0	7,076.2	7,207.7	7,073.5	15.2	21.9	-29.27	-2,241.7	107.5	2,593.7	2,567.5	26.19	99.019	
7,150.0	7,124.6	7,257.1	7,122.9	15.3	22.0	-23.99	-2,242.0	107.3	2,582.6	2,556.6	26.04	99.189	
7,200.0	7,171.8	7,305.8	7,171.6	15.2	22.0	-21.34	-2,242.3	107.1	2,567.5	2,541.7	25.76	99.687	
7,250.0	7,217.4	7,353.1	7,219.0	15.2	22.1	-19.97	-2,242.5	106.8	2,548.2	2,522.9	25.36	100.483	
7,300.0	7,261.1	7,398.6	7,264.4	15.2	22.1	-19.37	-2,242.7	106.6	2,525.1	2,500.3	24.87	101.526	
7,350.0	7,302.5	7,441.7	7,307.6	15.2	22.1	-19.32	-2,242.9	106.4	2,498.3	2,474.0	24.32	102.733	
7,400.0	7,341.3	7,481.4	7,347.2	15.1	22.2	-19.74	-2,243.0	106.2	2,468.0	2,444.3	23.74	103.967	
7,450.0	7,377.2	7,517.4	7,383.2	15.1	22.2	-20.60	-2,243.0	106.1	2,434.5	2,411.3	23.19	105.001	
7,500.0	7,410.0	7,550.2	7,416.0	15.1	22.3	-21.98	-2,243.1	106.0	2,398.0	2,375.3	22.74	105.468	
7,550.0	7,439.4	7,579.8	7,445.6	15.2	22.3	-23.98	-2,243.2	105.9	2,358.8	2,336.3	22.50	104.840	
7,600.0	7,465.2	7,605.9	7,471.7	15.2	22.3	-26.80	-2,243.3	105.8	2,317.2	2,294.6	22.62	102.439	
7,650.0	7,487.1	7,628.1	7,493.9	15.3	22.3	-30.78	-2,243.3	105.8	2,273.6	2,250.3	23.30	97.566	
7,700.0	7,505.1	7,646.2	7,512.1	15.5	22.4	-36.48	-2,243.3	105.7	2,228.3	2,203.5	24.81	89.820	
7,750.0	7,518.9	7,660.5	7,526.3	15.7	22.4	-44.84	-2,243.4	105.7	2,181.5	2,154.1	27.41	79.582	
7,800.0	7,528.5	7,670.5	7,536.3	15.9	22.4	-57.19	-2,243.4	105.7	2,133.8	2,102.6	31.14	68.524	
7,850.0	7,533.9	7,676.1	7,541.9	16.2	22.4	-74.63	-2,243.4	105.6	2,085.4	2,050.4	34.96	59.657	
7,886.2	7,535.0	7,677.3	7,543.1	16.4	22.4	-89.77	-2,243.4	105.6	2,050.2	2,013.8	36.32	56.454	
7,900.0	7,535.0	7,677.3	7,543.1	16.5	22.4	-89.77	-2,243.4	105.6	2,036.7	2,000.3	36.42	55.924	
8,000.0	7,535.0	7,677.5	7,543.3	17.2	22.4	-89.79	-2,243.4	105.6	1,939.5	1,902.2	37.26	52.054	
8,100.0	7,535.0	7,677.6	7,543.5	18.1	22.4	-89.81	-2,243.4	105.6	1,842.5	1,804.3	38.24	48.179	
8,200.0	7,535.0	7,677.8	7,543.6	19.1	22.4	-89.83	-2,243.4	105.6	1,745.9	1,706.6	39.35	44.370	
8,300.0	7,535.0	7,678.0	7,543.8	20.2	22.4	-89.85	-2,243.4	105.6	1,649.7	1,609.2	40.55	40.680	
8,400.0	7,535.0	7,678.1	7,544.0	21.4	22.4	-89.87	-2,243.4	105.6	1,554.0	1,512.2	41.84	37.142	
8,500.0	7,535.0	7,678.3	7,544.1	22.7	22.4	-89.89	-2,243.4	105.6	1,458.9	1,415.7	43.19	33.776	
8,600.0	7,535.0	7,678.5	7,544.3	24.0	22.4	-89.92	-2,243.4	105.6	1,364.4	1,319.8	44.60	30.592	
8,700.0	7,535.0	7,678.6	7,544.5	25.4	22.4	-89.94	-2,243.4	105.6	1,270.8	1,224.8	46.05	27.595	
8,800.0	7,535.0	7,678.8	7,544.6	26.9	22.4	-89.96	-2,243.4	105.6	1,178.3	1,130.7	47.54	24.783	
8,900.0	7,535.0	7,679.0	7,544.8	28.3	22.4	-89.98	-2,243.4	105.6	1,087.0	1,038.0	49.07	22.155	
9,000.0	7,535.0	7,679.1	7,545.0	29.8	22.4	-90.00	-2,243.4	105.6	997.5	946.9	50.61	19.708	
9,100.0	7,535.0	7,679.3	7,545.1	31.3	22.4	-90.02	-2,243.4	105.6	910.1	858.0	52.19	17.441	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 2-4-26 (EXISTING) - ENCANA WELL - SURVE												Offset Site Error:	0.0 ft
Survey Program: 92-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	7,535.0	7,679.5	7,545.3	32.9	22.4	-90.04	-2,243.4	105.6	825.7	771.9	53.78	15.354	
9,300.0	7,535.0	7,679.6	7,545.5	34.4	22.4	-90.06	-2,243.4	105.6	745.0	689.6	55.38	13.453	
9,400.0	7,535.0	7,679.8	7,545.6	36.0	22.4	-90.08	-2,243.4	105.6	669.6	612.6	57.00	11.747	
9,500.0	7,535.0	7,680.0	7,545.8	37.6	22.4	-90.10	-2,243.4	105.6	601.5	542.8	58.64	10.258	
9,600.0	7,535.0	7,680.1	7,546.0	39.2	22.4	-90.12	-2,243.4	105.6	543.2	483.0	60.28	9.012	
9,700.0	7,535.0	7,680.3	7,546.1	40.9	22.4	-90.14	-2,243.4	105.6	498.5	436.5	61.93	8.048	
9,800.0	7,535.0	7,680.4	7,546.3	42.5	22.4	-90.16	-2,243.4	105.6	471.0	407.4	63.59	7.406	
9,883.3	7,535.0	7,680.6	7,546.4	43.9	22.4	-90.17	-2,243.4	105.6	463.6	398.6	64.98	7.133 CC, ES	
9,900.0	7,535.0	7,680.6	7,546.4	44.1	22.4	-90.18	-2,243.4	105.6	463.9	398.6	65.26	7.107 SF	
10,000.0	7,535.0	7,680.8	7,546.6	45.8	22.4	-90.20	-2,243.4	105.6	478.0	411.1	66.94	7.141	
10,100.0	7,535.0	7,680.9	7,546.8	47.4	22.4	-90.22	-2,243.4	105.6	511.7	443.1	68.62	7.457	
10,200.0	7,535.0	7,681.1	7,546.9	49.1	22.4	-90.24	-2,243.4	105.6	561.4	491.1	70.31	7.986	
10,300.0	7,535.0	7,681.2	7,547.1	50.8	22.4	-90.26	-2,243.4	105.6	623.3	551.4	72.00	8.658	
10,400.0	7,535.0	7,681.4	7,547.2	52.5	22.4	-90.28	-2,243.4	105.6	694.2	620.5	73.69	9.420	
10,500.0	7,535.0	7,681.6	7,547.4	54.1	22.4	-90.30	-2,243.4	105.6	771.5	696.1	75.39	10.234	
10,600.0	7,535.0	7,681.7	7,547.6	55.8	22.4	-90.32	-2,243.4	105.6	853.6	776.5	77.09	11.072	
10,700.0	7,535.0	7,681.9	7,547.7	57.5	22.4	-90.34	-2,243.4	105.6	939.1	860.3	78.80	11.918	
10,800.0	7,535.0	7,682.0	7,547.9	59.2	22.4	-90.35	-2,243.4	105.6	1,027.3	946.8	80.51	12.760	
10,900.0	7,535.0	7,682.2	7,548.0	60.9	22.4	-90.37	-2,243.4	105.6	1,117.4	1,035.2	82.22	13.591	
11,000.0	7,535.0	7,682.4	7,548.2	62.6	22.4	-90.39	-2,243.4	105.6	1,209.1	1,125.2	83.93	14.406	
11,100.0	7,535.0	7,682.5	7,548.3	64.3	22.4	-90.41	-2,243.4	105.6	1,302.1	1,216.4	85.65	15.202	
11,200.0	7,535.0	7,682.7	7,548.5	66.0	22.4	-90.43	-2,243.4	105.6	1,396.0	1,308.6	87.37	15.978	
11,300.0	7,535.0	7,682.8	7,548.6	67.7	22.4	-90.45	-2,243.4	105.6	1,490.7	1,401.6	89.09	16.732	
11,400.0	7,535.0	7,683.0	7,548.8	69.4	22.4	-90.47	-2,243.4	105.6	1,586.0	1,495.2	90.81	17.465	
11,496.2	7,535.0	7,683.1	7,549.0	71.1	22.4	-90.49	-2,243.4	105.6	1,678.2	1,585.8	92.47	18.149	
11,500.0	7,535.0	7,683.1	7,549.0	71.2	22.4	-90.49	-2,243.4	105.6	1,681.9	1,589.4	92.53	18.176	
11,600.0	7,535.0	7,683.3	7,549.1	72.9	22.4	-90.51	-2,243.4	105.6	1,778.2	1,684.0	94.26	18.866	
11,700.0	7,535.0	7,683.4	7,549.3	74.6	22.4	-90.53	-2,243.4	105.6	1,875.0	1,779.0	95.98	19.534	
11,800.0	7,535.0	7,683.6	7,549.4	76.3	22.4	-90.55	-2,243.4	105.6	1,972.0	1,874.3	97.71	20.182	
11,900.0	7,535.0	7,683.7	7,549.6	78.0	22.4	-90.57	-2,243.4	105.6	2,069.3	1,969.9	99.44	20.810	
12,000.0	7,535.0	7,683.9	7,549.7	79.7	22.4	-90.58	-2,243.4	105.6	2,166.9	2,065.7	101.17	21.419	
12,100.0	7,535.0	7,684.0	7,549.9	81.5	22.4	-90.60	-2,243.4	105.6	2,264.7	2,161.8	102.90	22.009	
12,200.0	7,535.0	7,684.2	7,550.0	83.2	22.4	-90.62	-2,243.4	105.6	2,362.7	2,258.0	104.63	22.581	
12,296.2	7,535.0	7,684.3	7,550.2	84.9	22.4	-90.64	-2,243.4	105.6	2,457.0	2,350.8	106.30	23.115	
12,300.0	7,535.0	7,684.4	7,550.2	84.9	22.4	-90.65	-2,243.4	105.6	2,460.8	2,354.4	106.37	23.135	
12,400.0	7,535.0	7,684.5	7,550.3	86.6	22.4	-90.82	-2,243.4	105.6	2,559.4	2,451.2	108.15	23.665	
12,492.9	7,535.0	7,684.7	7,550.5	88.3	22.4	-91.09	-2,243.4	105.6	2,651.6	2,541.9	109.70	24.171	
12,500.0	7,535.0	7,684.7	7,550.5	88.4	22.4	-91.09	-2,243.4	105.6	2,658.6	2,548.8	109.82	24.208	
12,600.0	7,535.0	7,684.8	7,550.7	90.1	22.4	-91.12	-2,243.4	105.6	2,758.0	2,646.5	111.56	24.723	
12,700.0	7,535.0	7,685.0	7,550.8	91.9	22.4	-91.16	-2,243.4	105.6	2,857.5	2,744.2	113.29	25.222	
12,800.0	7,535.0	7,685.2	7,551.0	93.6	22.4	-91.19	-2,243.4	105.6	2,957.0	2,842.0	115.03	25.706	
12,900.0	7,535.0	7,685.4	7,551.2	95.3	22.4	-91.22	-2,243.4	105.6	3,056.5	2,939.7	116.77	26.176	
13,000.0	7,535.0	7,685.5	7,551.4	97.1	22.4	-91.26	-2,243.4	105.6	3,156.1	3,037.6	118.50	26.633	
13,100.0	7,535.0	7,685.7	7,551.5	98.8	22.4	-91.29	-2,243.4	105.6	3,255.7	3,135.4	120.24	27.076	
13,200.0	7,535.0	7,685.9	7,551.7	100.5	22.4	-91.32	-2,243.4	105.6	3,355.3	3,233.3	121.98	27.507	
13,300.0	7,535.0	7,686.0	7,551.9	102.3	22.4	-91.36	-2,243.4	105.6	3,454.9	3,331.2	123.72	27.926	
13,400.0	7,535.0	7,686.2	7,552.0	104.0	22.4	-91.39	-2,243.4	105.6	3,554.6	3,429.1	125.45	28.334	
13,500.0	7,535.0	7,686.4	7,552.2	105.8	22.4	-91.42	-2,243.4	105.6	3,654.2	3,527.1	127.19	28.730	
13,600.0	7,535.0	7,686.5	7,552.4	107.5	22.4	-91.45	-2,243.4	105.6	3,753.9	3,625.0	128.93	29.115	
13,700.0	7,535.0	7,686.7	7,552.5	109.3	22.4	-91.49	-2,243.4	105.6	3,853.6	3,723.0	130.67	29.491	
13,800.0	7,535.0	7,686.9	7,552.7	111.0	22.4	-91.52	-2,243.4	105.6	3,953.4	3,821.0	132.41	29.856	
13,900.0	7,535.0	7,687.0	7,552.9	112.7	22.4	-91.55	-2,243.4	105.6	4,053.1	3,919.0	134.15	30.213	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 2-4-26 (EXISTING) - ENCANA WELL - SURVE													Offset Site Error: 0.0 ft
Survey Program: 92-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	
14,000.0	7,535.0	7,687.2	7,553.0	114.5	22.4	-91.59	-2,243.4	105.6	4,152.9	4,017.0	135.89	30.560	
14,100.0	7,535.0	7,687.4	7,553.2	116.2	22.4	-91.62	-2,243.4	105.6	4,252.6	4,115.0	137.63	30.898	
14,200.0	7,535.0	7,687.5	7,553.4	118.0	22.4	-91.65	-2,243.4	105.6	4,352.4	4,213.0	139.38	31.228	
14,300.0	7,535.0	7,687.7	7,553.5	119.7	22.4	-91.68	-2,243.4	105.6	4,452.2	4,311.1	141.12	31.549	
14,400.0	7,535.0	7,687.9	7,553.7	121.5	22.4	-91.72	-2,243.4	105.6	4,552.0	4,409.1	142.86	31.863	
14,500.0	7,535.0	7,688.0	7,553.9	123.2	22.4	-91.75	-2,243.4	105.6	4,651.8	4,507.2	144.60	32.170	
14,600.0	7,535.0	7,688.2	7,554.0	124.9	22.4	-91.78	-2,243.4	105.6	4,751.6	4,605.2	146.34	32.469	
14,672.4	7,535.0	7,688.3	7,554.1	126.2	22.4	-91.80	-2,243.4	105.6	4,823.8	4,676.2	147.60	32.681	
14,672.9	7,535.0	7,688.3	7,554.1	126.2	22.4	-91.80	-2,243.4	105.6	4,824.3	4,676.7	147.61	32.682	



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2A-26H - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-11.2	11.2					
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-11.2	11.2	10.9	0.30	36.838		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-11.2	11.2	10.5	0.65	17.138		
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-11.2	11.2	10.2	1.00	11.167		
400.0	400.0	400.0	400.0	0.7	0.7	-90.00	0.0	-11.2	11.2	9.8	1.35	8.281		
500.0	500.0	500.0	500.0	0.8	0.8	-90.00	0.0	-11.2	11.2	9.5	1.70	6.581 CC, ES		
600.0	600.0	599.8	599.8	1.0	1.0	-88.53	0.3	-12.0	12.0	10.0	2.05	5.860		
700.0	700.0	699.6	699.5	1.2	1.2	-85.13	1.2	-14.4	14.5	12.1	2.40	6.044		
800.0	800.0	799.2	799.0	1.4	1.4	-81.50	2.8	-18.5	18.7	16.0	2.75	6.806		
900.0	900.0	898.6	898.3	1.5	1.6	-78.52	4.9	-24.2	24.7	21.6	3.11	7.949		
1,000.0	1,000.0	997.8	997.2	1.7	1.8	-76.31	7.7	-31.4	32.4	29.0	3.47	9.345		
1,100.0	1,100.0	1,096.7	1,095.7	1.9	2.0	-74.72	11.0	-40.2	41.9	38.1	3.84	10.905		
1,200.0	1,200.0	1,195.4	1,193.7	2.1	2.2	-71.65	14.9	-50.6	52.3	48.2	4.14	12.650		
1,300.0	1,300.0	1,293.8	1,291.3	2.2	2.5	-71.53	19.4	-62.5	62.8	58.3	4.48	14.013		
1,400.0	1,399.9	1,392.1	1,388.5	2.4	2.8	-71.84	24.5	-76.0	73.4	68.6	4.83	15.198		
1,500.0	1,499.7	1,491.5	1,486.7	2.6	3.1	-72.45	30.0	-90.6	83.4	78.2	5.18	16.093		
1,600.0	1,599.4	1,591.2	1,585.1	2.8	3.3	-73.35	35.6	-105.1	91.8	86.2	5.54	16.579		
1,619.7	1,619.0	1,610.8	1,604.5	2.8	3.4	-73.56	36.6	-108.0	93.2	87.6	5.61	16.633		
1,700.0	1,699.0	1,690.9	1,683.6	3.0	3.6	-74.41	41.1	-119.7	99.1	93.2	5.89	16.811		
1,800.0	1,798.5	1,790.6	1,782.1	3.2	4.0	-75.33	46.6	-134.3	106.4	100.2	6.26	17.007		
1,900.0	1,898.1	1,890.3	1,880.6	3.4	4.3	-76.13	52.1	-148.9	113.8	107.2	6.62	17.178		
2,000.0	1,997.7	1,990.0	1,979.1	3.6	4.6	-76.84	57.6	-163.5	121.1	114.2	6.99	17.328		
2,100.0	2,097.3	2,089.7	2,077.5	3.9	4.9	-77.47	63.2	-178.1	128.5	121.2	7.36	17.460		
2,200.0	2,196.9	2,189.5	2,176.0	4.1	5.2	-78.02	68.7	-192.7	135.9	128.2	7.73	17.575		
2,300.0	2,296.5	2,289.2	2,274.5	4.3	5.5	-78.52	74.2	-207.3	143.3	135.2	8.11	17.678		
2,400.0	2,396.1	2,388.9	2,373.0	4.5	5.8	-78.97	79.7	-221.9	150.8	142.3	8.48	17.769		
2,500.0	2,495.7	2,488.6	2,471.5	4.7	6.2	-79.38	85.3	-236.4	158.2	149.3	8.86	17.850		
2,600.0	2,595.3	2,588.3	2,570.0	5.0	6.5	-79.75	90.8	-251.0	165.6	156.4	9.24	17.922		
2,700.0	2,694.8	2,688.0	2,668.5	5.2	6.8	-80.09	96.3	-265.6	173.1	163.5	9.62	17.987		
2,800.0	2,794.4	2,787.8	2,767.0	5.4	7.1	-80.40	101.8	-280.2	180.5	170.5	10.00	18.045		
2,900.0	2,894.0	2,887.5	2,865.5	5.6	7.4	-80.69	107.4	-294.8	188.0	177.6	10.39	18.097		
3,000.0	2,993.6	2,987.2	2,964.0	5.9	7.7	-80.95	112.9	-309.4	195.4	184.7	10.77	18.145		
3,100.0	3,093.2	3,086.9	3,062.4	6.1	8.1	-81.20	118.4	-324.0	202.9	191.7	11.16	18.188		
3,200.0	3,192.8	3,186.6	3,160.9	6.3	8.4	-81.43	123.9	-338.6	210.4	198.8	11.54	18.227		
3,300.0	3,292.4	3,286.3	3,259.4	6.5	8.7	-81.64	129.4	-353.2	217.8	205.9	11.93	18.263		
3,400.0	3,392.0	3,386.1	3,357.9	6.8	9.0	-81.84	135.0	-367.8	225.3	213.0	12.31	18.296		
3,500.0	3,491.6	3,485.8	3,456.4	7.0	9.4	-82.02	140.5	-382.3	232.8	220.1	12.70	18.326		
3,600.0	3,591.1	3,585.5	3,554.9	7.2	9.7	-82.20	146.0	-396.9	240.3	227.2	13.09	18.353		
3,700.0	3,690.7	3,685.2	3,653.4	7.5	10.0	-82.36	151.5	-411.5	247.7	234.3	13.48	18.378		
3,800.0	3,790.3	3,784.9	3,751.9	7.7	10.3	-82.52	157.1	-426.1	255.2	241.3	13.87	18.402		
3,900.0	3,889.9	3,884.7	3,850.4	7.9	10.6	-82.66	162.6	-440.7	262.7	248.4	14.26	18.423		
4,000.0	3,989.5	3,984.4	3,948.8	8.2	11.0	-82.80	168.1	-455.3	270.2	255.5	14.65	18.443		
4,100.0	4,089.1	4,084.1	4,047.3	8.4	11.3	-82.93	173.6	-469.9	277.7	262.6	15.04	18.462		
4,200.0	4,188.7	4,183.8	4,145.8	8.6	11.6	-83.05	179.1	-484.5	285.2	269.7	15.43	18.479		
4,300.0	4,288.3	4,283.5	4,244.3	8.9	11.9	-83.17	184.7	-499.1	292.6	276.8	15.82	18.495		
4,400.0	4,387.9	4,383.2	4,342.8	9.1	12.3	-83.28	190.2	-513.7	300.1	283.9	16.21	18.510		
4,500.0	4,487.4	4,483.0	4,441.3	9.3	12.6	-83.38	195.7	-528.3	307.6	291.0	16.61	18.524		
4,600.0	4,587.0	4,582.7	4,539.8	9.6	12.9	-83.48	201.2	-542.8	315.1	298.1	17.00	18.537		
4,700.0	4,686.6	4,682.4	4,638.3	9.8	13.2	-83.58	206.8	-557.4	322.6	305.2	17.39	18.549		
4,800.0	4,786.2	4,782.1	4,736.8	10.0	13.6	-83.67	212.3	-572.0	330.1	312.3	17.78	18.561		
4,900.0	4,885.8	4,881.8	4,835.3	10.3	13.9	-83.76	217.8	-586.6	337.6	319.4	18.18	18.571		
5,000.0	4,985.4	4,981.5	4,933.7	10.5	14.2	-83.84	223.3	-601.2	345.1	326.5	18.57	18.581		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2A-26H - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,085.0	5,081.3	5,032.2	10.7	14.5	-33.92	228.8	-615.8	352.6	333.6	18.96	18.591		
5,200.0	5,184.6	5,181.0	5,130.7	11.0	14.9	-34.00	234.4	-630.4	360.1	340.7	19.36	18.600		
5,300.0	5,284.2	5,280.7	5,229.2	11.2	15.2	-34.07	239.9	-645.0	367.6	347.8	19.75	18.608		
5,400.0	5,383.7	5,380.4	5,327.7	11.4	15.5	-34.14	245.4	-659.6	375.1	354.9	20.15	18.616		
5,500.0	5,483.3	5,480.1	5,426.2	11.7	15.8	-34.21	250.9	-674.2	382.6	362.0	20.54	18.624		
5,600.0	5,582.9	5,579.9	5,524.7	11.9	16.2	-34.28	256.5	-688.8	390.1	369.1	20.94	18.631		
5,700.0	5,682.5	5,679.6	5,623.2	12.1	16.5	-34.34	262.0	-703.3	397.6	376.2	21.33	18.638		
5,800.0	5,782.1	5,779.3	5,721.7	12.4	16.8	-34.40	267.5	-717.9	405.1	383.3	21.73	18.644		
5,900.0	5,881.7	5,879.0	5,820.2	12.6	17.1	-34.46	273.0	-732.5	412.6	390.4	22.12	18.650		
6,000.0	5,981.3	5,978.7	5,918.6	12.8	17.5	-34.51	278.6	-747.1	420.1	397.5	22.52	18.656		
6,100.0	6,080.9	6,078.4	6,017.1	13.1	17.8	-34.57	284.1	-761.7	427.6	404.6	22.91	18.662		
6,200.0	6,180.5	6,178.2	6,115.6	13.3	18.1	-34.62	289.6	-776.3	435.1	411.7	23.31	18.667		
6,300.0	6,280.0	6,277.9	6,214.1	13.5	18.4	-34.67	295.1	-790.9	442.6	418.9	23.70	18.672		
6,400.0	6,379.6	6,377.6	6,312.6	13.8	18.8	-34.72	300.6	-805.5	450.1	426.0	24.10	18.677		
6,500.0	6,479.2	6,477.3	6,411.1	14.0	19.1	-34.77	306.2	-820.1	457.6	433.1	24.49	18.681		
6,600.0	6,578.8	6,577.0	6,509.6	14.2	19.4	-34.81	311.7	-834.7	465.1	440.2	24.89	18.685		
6,700.0	6,678.4	6,676.7	6,608.1	14.5	19.7	-34.86	317.2	-849.2	472.6	447.3	25.28	18.690		
6,800.0	6,778.0	6,776.5	6,706.6	14.7	20.1	-34.90	322.7	-863.8	480.1	454.4	25.68	18.693		
6,900.0	6,877.6	6,878.8	6,807.6	14.9	20.3	-35.81	321.0	-878.8	487.3	461.2	26.14	18.644		
6,953.0	6,930.4	6,931.3	6,859.0	15.1	20.4	-37.08	313.1	-886.4	491.1	464.6	26.46	18.563		
7,000.0	6,977.2	6,976.4	6,902.4	15.1	20.5	19.80	302.6	-892.8	494.8	468.0	26.77	18.479		
7,050.0	7,027.0	7,023.6	6,946.7	15.2	20.6	56.84	287.9	-899.4	499.1	472.0	27.05	18.447		
7,100.0	7,076.2	7,069.8	6,988.8	15.2	20.6	67.80	270.0	-905.7	503.8	476.5	27.27	18.477		
7,150.0	7,124.6	7,115.2	7,028.7	15.3	20.7	71.73	249.1	-911.6	508.8	481.4	27.40	18.568		
7,200.0	7,171.8	7,159.9	7,066.2	15.2	20.7	73.20	225.5	-917.1	514.0	486.6	27.45	18.722		
7,250.0	7,217.4	7,204.0	7,101.3	15.2	20.7	73.59	199.4	-922.3	519.4	492.0	27.43	18.936		
7,300.0	7,261.1	7,250.0	7,135.8	15.2	20.8	73.39	169.3	-927.4	524.9	497.6	27.33	19.208		
7,350.0	7,302.5	7,290.3	7,163.9	15.2	20.8	73.00	140.8	-931.6	530.4	503.2	27.16	19.526		
7,400.0	7,341.3	7,332.7	7,191.2	15.1	20.8	72.41	108.6	-935.6	535.9	508.9	26.95	19.883		
7,450.0	7,377.2	7,374.7	7,215.9	15.1	20.9	71.75	74.9	-939.3	541.2	514.5	26.71	20.265		
7,500.0	7,410.0	7,416.3	7,237.9	15.1	21.0	71.08	39.7	-942.6	546.3	519.9	26.43	20.673		
7,550.0	7,439.4	7,457.6	7,257.2	15.2	21.0	70.42	3.3	-945.4	551.2	524.9	26.27	20.985		
7,600.0	7,465.2	7,500.0	7,274.2	15.2	21.1	69.77	-35.4	-947.9	555.8	529.7	26.10	21.293		
7,650.0	7,487.1	7,539.4	7,287.5	15.3	21.2	69.21	-72.4	-949.9	560.0	534.0	26.05	21.494		
7,700.0	7,505.1	7,579.9	7,298.5	15.5	21.4	68.70	-111.4	-951.5	563.8	537.7	26.13	21.582		
7,750.0	7,518.9	7,620.3	7,306.7	15.7	21.5	68.26	-151.0	-952.7	567.2	540.9	26.34	21.530		
7,800.0	7,528.5	7,660.6	7,312.1	15.9	21.7	67.89	-190.9	-953.5	570.1	543.4	26.73	21.328		
7,850.0	7,533.9	7,700.0	7,314.7	16.2	21.8	67.60	-230.2	-953.9	572.5	545.3	27.29	20.981		
7,886.2	7,535.0	7,732.6	7,315.0	16.4	22.0	67.45	-262.8	-954.0	573.9	546.1	27.84	20.618		
7,900.0	7,535.0	7,746.5	7,315.0	16.5	22.1	67.47	-276.6	-954.0	574.3	546.3	28.03	20.492		
8,000.0	7,535.0	7,846.4	7,315.0	17.2	22.6	67.59	-376.6	-954.0	577.4	547.8	29.56	19.531		
8,100.0	7,535.0	7,946.4	7,315.0	18.1	23.3	67.72	-476.5	-954.0	580.5	549.1	31.36	18.512		
8,200.0	7,535.0	8,046.3	7,315.0	19.1	24.1	67.84	-576.4	-954.0	583.5	550.2	33.38	17.483		
8,300.0	7,535.0	8,146.2	7,315.0	20.2	25.0	67.96	-676.4	-954.0	586.6	551.0	35.59	16.485		
8,400.0	7,535.0	8,246.2	7,315.0	21.4	26.0	68.08	-776.3	-954.0	589.7	551.7	37.95	15.538		
8,500.0	7,535.0	8,346.1	7,315.0	22.7	27.1	68.20	-876.3	-954.0	592.8	552.3	40.45	14.655		
8,600.0	7,535.0	8,446.1	7,315.0	24.0	28.2	68.32	-976.2	-954.0	595.9	552.8	43.05	13.840		
8,700.0	7,535.0	8,546.0	7,315.0	25.4	29.4	68.44	-1,076.2	-954.0	598.9	553.2	45.75	13.092		
8,800.0	7,535.0	8,646.0	7,315.0	26.9	30.7	68.55	-1,176.1	-954.0	602.0	553.5	48.52	12.407		
8,900.0	7,535.0	8,745.9	7,315.0	28.3	32.0	68.67	-1,276.1	-954.0	605.1	553.7	51.36	11.781		
9,000.0	7,535.0	8,845.9	7,315.0	29.8	33.3	68.78	-1,376.0	-954.0	608.2	553.9	54.26	11.209		
9,100.0	7,535.0	8,945.8	7,315.0	31.3	34.7	68.90	-1,476.0	-954.0	611.3	554.1	57.20	10.687		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2A-26H - DD - Plan #2												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis		
9,200.0	7,535.0	9,045.7	7,315.0	32.9	36.1	69.01	-1,575.9	-954.0	614.4	554.2	60.19	10.208	
9,300.0	7,535.0	9,145.7	7,315.0	34.4	37.5	69.12	-1,675.8	-954.0	617.5	554.3	63.21	9.769	
9,400.0	7,535.0	9,245.6	7,315.0	36.0	39.0	69.23	-1,775.8	-954.0	620.6	554.3	66.26	9.366	
9,500.0	7,535.0	9,345.6	7,315.0	37.6	40.5	69.33	-1,875.7	-954.0	623.7	554.3	69.34	8.994	
9,600.0	7,535.0	9,445.5	7,315.0	39.2	42.0	69.44	-1,975.7	-954.0	626.8	554.3	72.45	8.652	
9,700.0	7,535.0	9,545.5	7,315.0	40.9	43.5	69.55	-2,075.6	-954.0	629.9	554.3	75.58	8.335	
9,800.0	7,535.0	9,645.4	7,315.0	42.5	45.0	69.65	-2,175.6	-954.0	633.0	554.3	78.72	8.041	
9,900.0	7,535.0	9,745.4	7,315.0	44.1	46.6	69.76	-2,275.5	-954.0	636.1	554.2	81.89	7.768	
10,000.0	7,535.0	9,845.3	7,315.0	45.8	48.2	69.86	-2,375.5	-954.0	639.2	554.1	85.08	7.514	
10,100.0	7,535.0	9,945.3	7,315.0	47.4	49.8	69.96	-2,475.4	-954.0	642.3	554.1	88.27	7.277	
10,200.0	7,535.0	10,045.2	7,315.0	49.1	51.4	70.06	-2,575.3	-954.0	645.5	554.0	91.49	7.055	
10,300.0	7,535.0	10,145.1	7,315.0	50.8	53.0	70.16	-2,675.3	-954.0	648.6	553.9	94.71	6.848	
10,400.0	7,535.0	10,245.1	7,315.0	52.5	54.6	70.26	-2,775.2	-954.0	651.7	553.7	97.95	6.653	
10,500.0	7,535.0	10,345.0	7,315.0	54.1	56.2	70.36	-2,875.2	-954.0	654.8	553.6	101.20	6.471	
10,600.0	7,535.0	10,445.0	7,315.0	55.8	57.8	70.46	-2,975.1	-954.0	657.9	553.5	104.45	6.299	
10,700.0	7,535.0	10,544.9	7,315.0	57.5	59.5	70.55	-3,075.1	-954.0	661.1	553.3	107.72	6.137	
10,800.0	7,535.0	10,644.9	7,315.0	59.2	61.1	70.65	-3,175.0	-954.0	664.2	553.2	111.00	5.984	
10,900.0	7,535.0	10,744.8	7,315.0	60.9	62.7	70.74	-3,275.0	-954.0	667.3	553.0	114.28	5.839	
11,000.0	7,535.0	10,844.8	7,315.0	62.6	64.4	70.83	-3,374.9	-954.0	670.4	552.9	117.57	5.702	
11,100.0	7,535.0	10,944.7	7,315.0	64.3	66.1	70.93	-3,474.9	-954.0	673.6	552.7	120.87	5.573	
11,200.0	7,535.0	11,044.6	7,315.0	66.0	67.7	71.02	-3,574.8	-954.0	676.7	552.5	124.18	5.449	
11,300.0	7,535.0	11,144.6	7,315.0	67.7	69.4	71.11	-3,674.7	-954.0	679.9	552.4	127.49	5.332	
11,400.0	7,535.0	11,244.5	7,315.0	69.4	71.1	71.20	-3,774.7	-954.0	683.0	552.2	130.81	5.221	
11,496.2	7,535.0	11,340.7	7,315.0	71.1	72.7	71.29	-3,870.8	-954.0	686.0	552.0	134.01	5.119	
11,500.0	7,535.0	11,344.5	7,315.0	71.2	72.7	71.29	-3,874.6	-954.0	686.1	552.0	134.14	5.115	
11,600.0	7,535.0	11,444.4	7,315.0	72.9	74.4	71.38	-3,974.6	-954.0	689.3	551.8	137.47	5.014	
11,700.0	7,535.0	11,544.4	7,315.0	74.6	76.1	71.46	-4,074.5	-954.0	692.4	551.6	140.80	4.918	
11,800.0	7,535.0	11,644.3	7,315.0	76.3	77.8	71.55	-4,174.5	-954.0	695.6	551.4	144.14	4.825	
11,900.0	7,535.0	11,744.3	7,315.0	78.0	79.5	71.64	-4,274.4	-954.0	698.7	551.2	147.49	4.737	
12,000.0	7,535.0	11,844.2	7,315.0	79.7	81.2	71.72	-4,374.4	-954.0	701.9	551.0	150.84	4.653	
12,100.0	7,535.0	11,944.2	7,315.0	81.5	82.9	71.81	-4,474.3	-954.0	705.0	550.8	154.19	4.572	
12,200.0	7,535.0	12,044.1	7,315.0	83.2	84.6	71.89	-4,574.2	-954.0	708.2	550.6	157.55	4.495	
12,296.2	7,535.0	12,140.2	7,315.0	84.9	86.2	71.97	-4,670.4	-954.0	711.2	550.4	160.79	4.423	
12,300.0	7,535.0	12,144.0	7,315.0	84.9	86.3	71.97	-4,674.2	-954.0	711.3	550.4	160.95	4.419	
12,400.0	7,535.0	12,244.0	7,315.0	86.6	88.0	72.02	-4,774.2	-954.0	712.7	547.6	165.03	4.318	
12,492.9	7,535.0	12,336.9	7,315.0	88.3	89.6	71.96	-4,867.1	-954.0	711.0	542.4	168.57	4.218	
12,500.0	7,535.0	12,344.0	7,315.0	88.4	89.7	71.96	-4,874.2	-954.0	710.7	541.9	168.80	4.210	
12,600.0	7,535.0	12,443.9	7,315.0	90.1	91.4	71.87	-4,974.1	-954.0	707.4	535.3	172.02	4.112	
12,700.0	7,535.0	12,543.9	7,315.0	91.9	93.1	71.78	-5,074.0	-954.0	704.0	528.7	175.23	4.017	
12,800.0	7,535.0	12,643.8	7,315.0	93.6	94.8	71.69	-5,174.0	-954.0	700.6	522.2	178.44	3.926	
12,900.0	7,535.0	12,743.7	7,315.0	95.3	96.5	71.60	-5,273.9	-954.0	697.2	515.6	181.65	3.838	
13,000.0	7,535.0	12,843.7	7,315.0	97.1	98.2	71.50	-5,373.8	-954.0	693.9	509.0	184.85	3.754	
13,100.0	7,535.0	12,943.6	7,315.0	98.8	99.9	71.41	-5,473.8	-954.0	690.5	502.4	188.05	3.672	
13,200.0	7,535.0	13,043.6	7,315.0	100.5	101.6	71.32	-5,573.7	-954.0	687.1	495.9	191.25	3.593	
13,300.0	7,535.0	13,143.5	7,315.0	102.3	103.4	71.22	-5,673.6	-954.0	683.8	489.3	194.44	3.517	
13,400.0	7,535.0	13,243.4	7,315.0	104.0	105.1	71.12	-5,773.6	-954.0	680.4	482.8	197.62	3.443	
13,500.0	7,535.0	13,343.4	7,315.0	105.8	106.8	71.03	-5,873.5	-954.0	677.1	476.2	200.81	3.372	
13,600.0	7,535.0	13,443.3	7,315.0	107.5	108.5	70.93	-5,973.5	-954.0	673.7	469.7	203.98	3.303	
13,700.0	7,535.0	13,543.2	7,315.0	109.3	110.2	70.83	-6,073.4	-954.0	670.3	463.2	207.16	3.236	
13,800.0	7,535.0	13,643.2	7,315.0	111.0	112.0	70.73	-6,173.3	-954.0	667.0	456.7	210.33	3.171	
13,900.0	7,535.0	13,743.1	7,315.0	112.7	113.7	70.63	-6,273.3	-954.0	663.6	450.1	213.49	3.109	
14,000.0	7,535.0	13,843.1	7,315.0	114.5	115.4	70.53	-6,373.2	-954.0	660.3	443.6	216.65	3.048	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2A-26H - DD - Plan #2													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
14,100.0	7,535.0	13,943.0	7,315.0	116.2	117.1	70.42	-6,473.1	-954.0	656.9	437.1	219.80	2.989		
14,200.0	7,535.0	14,042.9	7,315.0	118.0	118.9	70.32	-6,573.1	-954.0	653.6	430.6	222.95	2.932		
14,300.0	7,535.0	14,142.9	7,315.0	119.7	120.6	70.21	-6,673.0	-954.0	650.3	424.2	226.09	2.876		
14,400.0	7,535.0	14,242.8	7,315.0	121.5	122.3	70.11	-6,773.0	-954.0	646.9	417.7	229.22	2.822		
14,500.0	7,535.0	14,342.7	7,315.0	123.2	124.0	70.00	-6,872.9	-954.0	643.6	411.2	232.35	2.770		
14,600.0	7,535.0	14,442.7	7,315.0	124.9	125.8	69.89	-6,972.8	-954.0	640.2	404.8	235.47	2.719		
14,672.4	7,535.0	14,515.0	7,315.0	126.2	127.0	69.81	-7,045.1	-954.0	637.8	400.1	237.73	2.683		
14,672.9	7,535.0	14,515.5	7,315.0	126.2	127.0	69.81	-7,045.7	-954.0	637.8	400.1	237.74	2.683 SF		



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2C-26H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	32.0	32.0	0.0	0.0	103.79	-214.9	875.4	901.4					
100.0	100.0	132.0	132.0	0.2	0.2	103.79	-214.9	875.4	901.4	901.0	0.36	2,507.102		
200.0	200.0	232.0	232.0	0.3	0.4	103.79	-214.9	875.4	901.4	900.7	0.71	1,272.077		
300.0	300.0	332.0	332.0	0.5	0.6	103.79	-214.9	875.4	901.4	900.3	1.06	852.250		
400.0	400.0	432.0	432.0	0.7	0.7	103.79	-214.9	875.4	901.4	900.0	1.41	640.774		
500.0	500.0	532.0	532.0	0.8	0.9	103.79	-214.9	875.4	901.4	899.6	1.76	513.383		
600.0	600.0	632.0	632.0	1.0	1.1	103.79	-214.9	875.4	901.4	899.3	2.10	428.245		
700.0	700.0	732.0	732.0	1.2	1.3	103.79	-214.9	875.4	901.4	898.9	2.45	367.328		
800.0	800.0	832.0	832.0	1.4	1.4	103.79	-214.9	875.4	901.4	898.6	2.80	321.584		
900.0	900.0	932.0	932.0	1.5	1.6	103.79	-214.9	875.4	901.4	898.2	3.15	285.971		
1,000.0	1,000.0	1,032.0	1,032.0	1.7	1.8	103.79	-214.9	875.4	901.4	897.9	3.50	257.459		
1,100.0	1,100.0	1,137.2	1,137.2	1.9	2.0	103.79	-214.8	875.3	901.3	897.4	3.86	233.539		
1,200.0	1,200.0	1,253.5	1,253.5	2.1	2.2	156.00	-213.6	873.8	900.6	896.4	4.24	212.570		
1,300.0	1,300.0	1,369.8	1,369.7	2.2	2.4	155.96	-210.8	870.6	899.7	895.1	4.61	194.977		
1,400.0	1,399.9	1,486.0	1,485.8	2.4	2.6	155.90	-206.4	865.5	898.6	893.6	4.99	179.959		
1,500.0	1,499.7	1,602.3	1,601.6	2.6	2.8	155.83	-200.6	858.7	897.3	891.9	5.37	166.939		
1,600.0	1,599.4	1,718.4	1,717.2	2.8	3.1	155.75	-193.2	850.1	895.7	890.0	5.76	155.481		
1,619.7	1,619.0	1,741.3	1,740.0	2.8	3.1	155.73	-191.5	848.2	895.4	889.6	5.84	153.376		
1,700.0	1,699.0	1,834.5	1,832.5	3.0	3.3	155.62	-184.3	839.8	893.5	887.3	6.16	145.140		
1,800.0	1,798.5	1,950.4	1,947.3	3.2	3.6	155.43	-173.8	827.6	889.4	882.9	6.56	135.620		
1,900.0	1,898.1	2,066.0	2,061.5	3.4	3.9	155.16	-161.9	813.8	883.6	876.7	6.97	126.798		
2,000.0	1,997.7	2,181.3	2,174.9	3.6	4.3	154.82	-148.6	798.3	876.1	868.7	7.39	118.563		
2,100.0	2,097.3	2,296.1	2,287.4	3.9	4.6	154.40	-133.8	781.1	866.8	859.0	7.82	110.829		
2,200.0	2,196.9	2,410.4	2,399.0	4.1	5.0	153.90	-117.6	762.3	855.8	847.5	8.27	103.507		
2,300.0	2,296.5	2,524.0	2,509.4	4.3	5.5	153.31	-100.1	741.9	843.1	834.4	8.73	96.555		
2,400.0	2,396.1	2,632.3	2,614.1	4.5	6.0	152.66	-82.2	721.0	828.9	819.7	9.20	90.088		
2,500.0	2,495.7	2,730.8	2,709.3	4.7	6.4	152.03	-65.5	701.7	814.4	804.7	9.66	84.338		
2,600.0	2,595.3	2,829.4	2,804.5	5.0	6.8	151.38	-48.9	682.4	800.0	789.9	10.12	79.027		
2,700.0	2,694.8	2,927.9	2,899.7	5.2	7.3	150.70	-32.3	663.0	785.7	775.1	10.60	74.111		
2,800.0	2,794.4	3,026.5	2,994.8	5.4	7.7	150.00	-15.6	643.7	771.5	760.4	11.09	69.555		
2,900.0	2,894.0	3,125.0	3,090.0	5.6	8.2	149.28	1.0	624.4	757.5	745.9	11.60	65.325		
3,000.0	2,993.6	3,223.5	3,185.2	5.9	8.6	148.53	17.6	605.0	743.5	731.4	12.11	61.392		
3,100.0	3,093.2	3,322.1	3,280.4	6.1	9.1	147.74	34.3	585.7	729.7	717.1	12.64	57.730		
3,200.0	3,192.8	3,420.6	3,375.6	6.3	9.5	146.93	50.9	566.4	716.1	702.9	13.18	54.316		
3,300.0	3,292.4	3,519.1	3,470.7	6.5	10.0	146.09	67.5	547.0	702.6	688.8	13.74	51.129		
3,400.0	3,392.0	3,617.7	3,565.9	6.8	10.5	145.22	84.1	527.7	689.2	674.9	14.31	48.152		
3,500.0	3,491.6	3,716.2	3,661.1	7.0	10.9	144.31	100.8	508.4	676.0	661.1	14.90	45.367		
3,600.0	3,591.1	3,814.8	3,756.3	7.2	11.4	143.37	117.4	489.0	663.0	647.5	15.50	42.762		
3,700.0	3,690.7	3,913.3	3,851.5	7.5	11.9	142.38	134.0	469.7	650.2	634.0	16.12	40.321		
3,800.0	3,790.3	4,011.8	3,946.6	7.7	12.3	141.37	150.7	450.4	637.5	620.8	16.76	38.034		
3,900.0	3,889.9	4,110.4	4,041.8	7.9	12.8	140.31	167.3	431.0	625.1	607.7	17.42	35.890		
4,000.0	3,989.5	4,208.9	4,137.0	8.2	13.3	139.20	183.9	411.7	612.9	594.8	18.09	33.880		
4,100.0	4,089.1	4,306.9	4,231.7	8.4	13.7	138.06	200.5	392.5	600.9	582.2	18.78	32.001		
4,200.0	4,188.7	4,400.0	4,321.8	8.6	14.2	137.00	215.6	374.8	589.9	570.4	19.44	30.346		
4,300.0	4,288.3	4,491.2	4,410.5	8.9	14.6	136.03	229.6	358.6	580.1	560.0	20.07	28.900		
4,400.0	4,387.9	4,584.1	4,501.1	9.1	14.9	135.12	242.8	343.2	571.6	550.9	20.70	27.618		
4,500.0	4,487.4	4,677.2	4,592.3	9.3	15.3	134.29	255.1	328.9	564.4	543.1	21.30	26.492		
4,600.0	4,587.0	4,770.7	4,684.2	9.6	15.6	133.56	266.5	315.7	558.4	536.5	21.89	25.510		
4,700.0	4,686.6	4,864.5	4,776.6	9.8	15.9	132.94	276.9	303.6	553.5	531.0	22.45	24.658		
4,800.0	4,786.2	4,958.5	4,869.4	10.0	16.2	132.43	286.4	292.6	549.7	526.7	22.98	23.926		
4,900.0	4,885.8	5,052.7	4,962.7	10.3	16.5	132.03	294.9	282.7	547.0	523.6	23.47	23.303		
5,000.0	4,985.4	5,147.0	5,056.3	10.5	16.7	131.76	302.4	274.0	545.4	521.5	23.94	22.782		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2C-26H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
5,100.0	5,085.0	5,241.3	5,150.1	10.7	17.0	131.61	308.9	266.4	544.8	520.4	24.37		22.354	
5,106.8	5,091.8	5,247.8	5,156.6	10.7	17.0	131.61	309.3	266.0	544.8	520.4	24.40		22.328 CC	
5,200.0	5,184.6	5,335.7	5,244.1	11.0	17.2	131.59	314.3	260.0	545.3	520.5	24.77		22.014	
5,300.0	5,284.2	5,430.1	5,338.3	11.2	17.3	131.70	318.8	254.8	546.7	521.6	25.13		21.757	
5,400.0	5,383.7	5,524.4	5,432.4	11.4	17.5	131.94	322.3	250.8	549.2	523.8	25.45		21.577	
5,500.0	5,483.3	5,618.5	5,526.5	11.7	17.6	132.29	324.7	248.0	552.8	527.1	25.74		21.473	
5,600.0	5,582.9	5,712.5	5,620.4	11.9	17.7	132.77	326.2	246.3	557.4	531.4	26.00		21.440	
5,700.0	5,682.5	5,806.6	5,714.5	12.1	17.8	133.35	326.6	245.8	563.2	537.0	26.22		21.476	
5,800.0	5,782.1	5,906.2	5,814.1	12.4	17.9	134.01	326.6	245.8	569.5	543.0	26.44		21.536	
5,900.0	5,881.7	6,005.8	5,913.7	12.6	18.0	134.66	326.6	245.8	575.8	549.1	26.66		21.595	
6,000.0	5,981.3	6,105.4	6,013.3	12.8	18.1	135.29	326.6	245.8	582.2	555.3	26.89		21.654	
6,100.0	6,080.9	6,204.9	6,112.9	13.1	18.2	135.91	326.6	245.8	588.7	561.6	27.11		21.713	
6,200.0	6,180.5	6,304.5	6,212.5	13.3	18.3	136.52	326.6	245.8	595.3	567.9	27.34		21.770	
6,300.0	6,280.0	6,404.1	6,312.0	13.5	18.4	137.11	326.6	245.8	601.9	574.3	27.57		21.827	
6,400.0	6,379.6	6,503.7	6,411.6	13.8	18.6	137.69	326.6	245.8	608.5	580.7	27.81		21.884	
6,500.0	6,479.2	6,603.3	6,511.2	14.0	18.7	138.26	326.6	245.8	615.3	587.2	28.05		21.939	
6,600.0	6,578.8	6,702.9	6,610.8	14.2	18.8	138.81	326.6	245.8	622.1	593.8	28.28		21.994	
6,700.0	6,678.4	6,805.1	6,712.9	14.5	18.8	139.65	323.5	245.8	628.8	600.4	28.42		22.123	
6,800.0	6,778.0	6,904.9	6,811.3	14.7	18.8	141.62	307.5	245.8	635.4	607.2	28.22		22.517	
6,900.0	6,877.6	6,997.1	6,899.5	14.9	18.6	144.46	280.6	245.8	643.2	615.4	27.78		23.151	
6,953.0	6,930.4	7,042.3	6,941.2	15.1	18.5	146.19	263.3	245.8	648.4	620.9	27.51		23.573	
7,000.0	6,977.2	7,080.8	6,975.9	15.1	18.4	-153.22	246.5	245.8	653.7	626.5	27.17		24.060	
7,050.0	7,027.0	7,121.3	7,011.3	15.2	18.3	-112.37	226.9	245.8	659.7	632.9	26.83		24.589	
7,100.0	7,076.2	7,161.4	7,045.2	15.2	18.2	-97.75	205.6	245.8	665.9	639.4	26.52		25.110	
7,150.0	7,124.6	7,200.0	7,076.7	15.3	18.1	-90.38	183.2	245.8	672.2	645.9	26.25		25.604	
7,200.0	7,171.8	7,240.4	7,108.4	15.2	18.0	-85.61	158.0	245.8	678.3	652.3	26.02		26.073	
7,250.0	7,217.4	7,279.5	7,137.5	15.2	17.9	-82.17	132.1	245.8	684.2	658.4	25.83		26.494	
7,300.0	7,261.1	7,318.4	7,165.1	15.2	17.8	-79.52	104.7	245.8	689.8	664.1	25.67		26.868	
7,350.0	7,302.5	7,357.0	7,191.0	15.2	17.7	-77.39	76.0	245.8	694.9	669.3	25.55		27.192	
7,400.0	7,341.3	7,400.0	7,218.0	15.1	17.6	-75.61	42.5	245.8	699.4	673.9	25.46		27.465	
7,450.0	7,377.2	7,433.8	7,237.7	15.1	17.5	-74.30	15.1	245.8	703.2	677.8	25.42		27.658	
7,500.0	7,410.0	7,472.0	7,258.4	15.1	17.4	-73.20	-16.9	245.8	706.3	680.9	25.41		27.793	
7,550.0	7,439.4	7,510.1	7,277.4	15.2	17.4	-72.37	-50.0	245.8	708.7	683.2	25.44		27.857	
7,600.0	7,465.2	7,550.0	7,295.3	15.2	17.4	-71.76	-85.7	245.8	710.2	684.7	25.51		27.841	
7,650.0	7,487.1	7,586.1	7,309.8	15.3	17.4	-71.40	-118.7	245.8	710.9	685.2	25.64		27.729	
7,700.0	7,505.1	7,624.1	7,323.2	15.5	17.4	-71.25	-154.3	245.8	710.7	684.9	25.82		27.526	
7,750.0	7,518.9	7,662.1	7,334.8	15.7	17.4	-71.31	-190.5	245.8	709.7	683.6	26.06		27.232	
7,800.0	7,528.5	7,700.0	7,344.3	15.9	17.4	-71.57	-227.1	245.8	707.8	681.5	26.35		26.858	
7,850.0	7,533.9	7,738.2	7,352.0	16.2	17.5	-72.04	-264.5	245.8	705.1	678.4	26.73		26.378	
7,886.2	7,535.0	7,765.8	7,356.3	16.4	17.6	-72.50	-291.8	245.8	702.7	675.6	27.04		25.983	
7,900.0	7,535.0	7,776.4	7,357.7	16.5	17.6	-72.60	-302.3	245.8	701.7	674.5	27.19		25.805	
8,000.0	7,535.0	7,853.7	7,362.9	17.2	17.9	-72.95	-379.4	245.8	696.5	668.1	28.38		24.542	
8,100.0	7,535.0	7,950.8	7,363.0	18.1	18.4	-72.88	-476.5	245.8	693.3	663.4	29.93		23.163	
8,200.0	7,535.0	8,050.7	7,363.0	19.1	19.1	-72.80	-576.4	245.8	690.2	658.4	31.75		21.736	
8,300.0	7,535.0	8,150.6	7,363.0	20.2	19.9	-72.72	-676.4	245.8	687.0	653.2	33.80		20.323	
8,400.0	7,535.0	8,250.6	7,363.0	21.4	20.8	-72.63	-776.3	245.9	683.8	647.8	36.05		18.969	
8,500.0	7,535.0	8,350.5	7,363.0	22.7	21.8	-72.55	-876.2	245.9	680.7	642.2	38.45		17.701	
8,600.0	7,535.0	8,450.5	7,363.0	24.0	22.9	-72.47	-976.2	245.9	677.5	636.5	40.99		16.529	
8,700.0	7,535.0	8,550.4	7,363.0	25.4	24.1	-72.38	-1,076.1	245.9	674.4	630.7	43.63		15.457	
8,800.0	7,535.0	8,650.4	7,363.0	26.9	25.4	-72.30	-1,176.1	245.9	671.2	624.9	46.36		14.479	
8,900.0	7,535.0	8,750.3	7,363.0	28.3	26.7	-72.21	-1,276.0	245.9	668.1	618.9	49.16		13.590	
9,000.0	7,535.0	8,850.3	7,363.0	29.8	28.1	-72.12	-1,376.0	245.9	664.9	612.9	52.02		12.782	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2C-26H - Hz - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
9,100.0	7,535.0	8,950.2	7,363.0	31.3	29.5	-72.04	-1,475.9	245.9	661.8	606.8	54.93	12.048	
9,200.0	7,535.0	9,050.2	7,363.0	32.9	30.9	-71.95	-1,575.9	245.9	658.6	600.7	57.88	11.379	
9,300.0	7,535.0	9,150.1	7,363.0	34.4	32.4	-71.86	-1,675.8	245.9	655.5	594.6	60.86	10.769	
9,400.0	7,535.0	9,250.0	7,363.0	36.0	33.9	-71.77	-1,775.8	245.9	652.3	588.4	63.88	10.212	
9,500.0	7,535.0	9,350.0	7,363.0	37.6	35.4	-71.68	-1,875.7	245.9	649.2	582.3	66.92	9.701	
9,600.0	7,535.0	9,449.9	7,363.0	39.2	36.9	-71.58	-1,975.6	245.9	646.0	576.1	69.98	9.232	
9,700.0	7,535.0	9,549.9	7,363.0	40.9	38.5	-71.49	-2,075.6	245.9	642.9	569.8	73.05	8.801	
9,800.0	7,535.0	9,649.8	7,363.0	42.5	40.1	-71.40	-2,175.5	245.9	639.8	563.6	76.14	8.402	
9,900.0	7,535.0	9,749.8	7,363.0	44.1	41.7	-71.30	-2,275.5	245.9	636.6	557.4	79.25	8.033	
10,000.0	7,535.0	9,849.7	7,363.0	45.8	43.3	-71.20	-2,375.4	245.9	633.5	551.1	82.36	7.692	
10,100.0	7,535.0	9,949.7	7,363.0	47.4	44.9	-71.11	-2,475.4	245.9	630.4	544.9	85.48	7.374	
10,200.0	7,535.0	10,049.6	7,363.0	49.1	46.5	-71.01	-2,575.3	245.9	627.2	538.6	88.61	7.078	
10,300.0	7,535.0	10,149.6	7,363.0	50.8	48.1	-70.91	-2,675.3	246.0	624.1	532.3	91.75	6.802	
10,400.0	7,535.0	10,249.5	7,363.0	52.5	49.8	-70.81	-2,775.2	246.0	621.0	526.1	94.89	6.544	
10,500.0	7,535.0	10,349.4	7,363.0	54.1	51.4	-70.71	-2,875.2	246.0	617.8	519.8	98.03	6.303	
10,600.0	7,535.0	10,449.4	7,363.0	55.8	53.1	-70.61	-2,975.1	246.0	614.7	513.5	101.18	6.076	
10,700.0	7,535.0	10,549.3	7,363.0	57.5	54.7	-70.51	-3,075.0	246.0	611.6	507.3	104.32	5.863	
10,800.0	7,535.0	10,649.3	7,363.0	59.2	56.4	-70.40	-3,175.0	246.0	608.5	501.0	107.47	5.662	
10,900.0	7,535.0	10,749.2	7,363.0	60.9	58.1	-70.30	-3,274.9	246.0	605.4	494.7	110.62	5.472	
11,000.0	7,535.0	10,849.2	7,363.0	62.6	59.7	-70.19	-3,374.9	246.0	602.2	488.5	113.77	5.293	
11,100.0	7,535.0	10,949.1	7,363.0	64.3	61.4	-70.08	-3,474.8	246.0	599.1	482.2	116.92	5.124	
11,200.0	7,535.0	11,049.1	7,363.0	66.0	63.1	-69.97	-3,574.8	246.0	596.0	476.0	120.07	4.964	
11,300.0	7,535.0	11,149.0	7,363.0	67.7	64.8	-69.87	-3,674.7	246.0	592.9	469.7	123.21	4.812	
11,400.0	7,535.0	11,248.9	7,363.0	69.4	66.5	-69.75	-3,774.7	246.0	589.8	463.4	126.36	4.668	
11,496.2	7,535.0	11,345.1	7,363.0	71.1	68.1	-69.65	-3,870.8	246.0	586.8	457.4	129.38	4.536	
11,500.0	7,535.0	11,348.9	7,363.0	71.2	68.2	-69.64	-3,874.6	246.0	586.7	457.2	129.50	4.531	
11,600.0	7,535.0	11,448.8	7,363.0	72.9	69.9	-69.53	-3,974.6	246.0	583.6	451.0	132.64	4.400	
11,700.0	7,535.0	11,548.8	7,363.0	74.6	71.6	-69.42	-4,074.5	246.0	580.5	444.7	135.77	4.276	
11,800.0	7,535.0	11,648.7	7,363.0	76.3	73.3	-69.30	-4,174.4	246.0	577.4	438.5	138.90	4.157	
11,900.0	7,535.0	11,748.7	7,363.0	78.0	75.0	-69.18	-4,274.4	246.0	574.3	432.3	142.03	4.043	
12,000.0	7,535.0	11,848.6	7,363.0	79.7	76.7	-69.07	-4,374.3	246.0	571.2	426.1	145.15	3.935	
12,100.0	7,535.0	11,948.6	7,363.0	81.5	78.4	-68.95	-4,474.3	246.0	568.1	419.8	148.27	3.832	
12,200.0	7,535.0	12,048.5	7,363.0	83.2	80.1	-68.83	-4,574.2	246.1	565.0	413.6	151.39	3.732	
12,296.2	7,535.0	12,144.6	7,363.0	84.9	81.8	-68.71	-4,670.3	246.1	562.1	407.7	154.38	3.641	
12,300.0	7,535.0	12,148.5	7,363.0	84.9	81.8	-68.70	-4,674.2	246.1	561.9	407.4	154.52	3.637	
12,391.0	7,535.0	12,239.5	7,363.0	86.5	83.4	-68.66	-4,765.2	246.1	560.6	402.6	157.96	3.549	
12,400.0	7,535.0	12,248.4	7,363.0	86.6	83.5	-68.66	-4,774.2	246.1	560.6	402.3	158.30	3.541	
12,492.9	7,535.0	12,341.3	7,363.0	88.3	85.1	-68.72	-4,867.1	246.1	562.3	400.5	161.75	3.476	
12,500.0	7,535.0	12,348.4	7,363.0	88.4	85.3	-68.72	-4,874.1	246.1	562.5	400.5	161.99	3.473	
12,600.0	7,535.0	12,448.4	7,363.0	90.1	87.0	-68.86	-4,974.1	246.1	565.8	400.5	165.36	3.422	
12,700.0	7,535.0	12,548.3	7,363.0	91.9	88.7	-68.98	-5,074.0	246.1	569.2	400.4	168.73	3.373	
12,800.0	7,535.0	12,648.2	7,363.0	93.6	90.4	-69.11	-5,173.9	246.1	572.5	400.4	172.11	3.326	
12,900.0	7,535.0	12,748.2	7,363.0	95.3	92.1	-69.24	-5,273.9	246.1	575.8	400.3	175.50	3.281	
13,000.0	7,535.0	12,848.1	7,363.0	97.1	93.9	-69.36	-5,373.8	246.1	579.1	400.2	178.89	3.237	
13,100.0	7,535.0	12,948.0	7,363.0	98.8	95.6	-69.49	-5,473.7	246.1	582.5	400.2	182.28	3.195	
13,200.0	7,535.0	13,048.0	7,363.0	100.5	97.3	-69.61	-5,573.7	246.1	585.8	400.1	185.68	3.155	
13,300.0	7,535.0	13,147.9	7,363.0	102.3	99.0	-69.73	-5,673.6	246.1	589.1	400.0	189.08	3.116	
13,400.0	7,535.0	13,247.8	7,363.0	104.0	100.8	-69.85	-5,773.6	246.1	592.5	400.0	192.48	3.078	
13,500.0	7,535.0	13,347.8	7,363.0	105.8	102.5	-69.97	-5,873.5	246.1	595.8	399.9	195.89	3.042	
13,600.0	7,535.0	13,447.7	7,363.0	107.5	104.2	-70.08	-5,973.4	246.1	599.1	399.8	199.30	3.006	
13,700.0	7,535.0	13,547.7	7,363.0	109.3	105.9	-70.20	-6,073.4	246.1	602.5	399.8	202.71	2.972	
13,800.0	7,535.0	13,647.6	7,363.0	111.0	107.7	-70.31	-6,173.3	246.1	605.8	399.7	206.13	2.939	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2C-26H - Hz - Plan #1		Offset Site Error:		0.0 ft
Survey Program: 0-MWD															Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor					
13,900.0	7,535.0	13,747.5	7,363.0	112.7	109.4	-70.42	-6,273.2	246.1	609.2	399.6	209.55	2.907					
14,000.0	7,535.0	13,847.5	7,363.0	114.5	111.1	-70.54	-6,373.2	246.2	612.5	399.6	212.98	2.876					
14,100.0	7,535.0	13,947.4	7,363.0	116.2	112.9	-70.65	-6,473.1	246.2	615.9	399.5	216.40	2.846					
14,200.0	7,535.0	14,047.3	7,363.0	118.0	114.6	-70.75	-6,573.1	246.2	619.3	399.4	219.83	2.817					
14,300.0	7,535.0	14,147.3	7,363.0	119.7	116.3	-70.86	-6,673.0	246.2	622.6	399.3	223.26	2.789					
14,400.0	7,535.0	14,247.2	7,363.0	121.5	118.1	-70.97	-6,772.9	246.2	626.0	399.3	226.70	2.761					
14,500.0	7,535.0	14,347.2	7,363.0	123.2	119.8	-71.07	-6,872.9	246.2	629.3	399.2	230.14	2.735					
14,600.0	7,535.0	14,447.1	7,363.0	124.9	121.5	-71.18	-6,972.8	246.2	632.7	399.1	233.58	2.709					
14,672.4	7,535.0	14,519.4	7,363.0	126.2	122.8	-71.25	-7,045.1	246.2	635.1	399.1	236.07	2.691 ES					
14,672.9	7,535.0	14,519.4	7,363.0	126.2	122.8	-71.25	-7,045.1	246.2	635.2	399.1	236.07	2.690 SF					



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2D-26H - Hz - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	33.0	33.0	0.0	0.1	103.67	-214.9	883.8	909.6					
100.0	100.0	133.0	133.0	0.2	0.2	103.67	-214.9	883.8	909.6	909.2	0.36	2,517.562		
200.0	200.0	236.2	236.2	0.3	0.4	103.66	-214.8	883.8	909.5	908.8	0.72	1,270.330		
300.0	300.0	345.8	345.8	0.5	0.6	103.57	-213.2	883.2	908.6	907.5	1.08	839.849		
400.0	400.0	455.3	455.2	0.7	0.8	103.37	-209.6	881.9	906.7	905.2	1.45	626.313		
500.0	500.0	564.6	564.4	0.8	1.0	103.06	-204.0	879.8	903.7	901.9	1.81	498.421		
600.0	600.0	673.7	673.2	1.0	1.2	102.63	-196.5	877.1	899.7	897.6	2.18	413.041		
700.0	700.0	782.4	781.4	1.2	1.5	102.09	-187.1	873.7	894.8	892.3	2.54	351.840		
800.0	800.0	890.7	889.0	1.4	1.7	101.43	-175.9	869.6	888.9	886.0	2.91	305.698		
900.0	900.0	998.5	995.9	1.5	2.0	100.66	-162.7	864.8	882.2	878.9	3.27	269.564		
1,000.0	1,000.0	1,105.8	1,102.0	1.7	2.4	99.76	-147.8	859.4	874.7	871.1	3.64	240.398		
1,100.0	1,100.0	1,211.5	1,206.2	1.9	2.7	98.74	-131.3	853.3	866.5	862.5	4.00	216.385		
1,200.0	1,200.0	1,310.1	1,303.3	2.1	3.0	150.04	-115.2	847.5	858.9	854.0	4.95	173.579		
1,300.0	1,300.0	1,408.9	1,400.7	2.2	3.4	149.14	-99.0	841.6	853.1	847.7	5.43	156.976		
1,400.0	1,399.9	1,507.9	1,498.2	2.4	3.7	148.27	-82.9	835.7	849.0	843.1	5.93	143.240		
1,500.0	1,499.7	1,607.1	1,595.9	2.6	4.0	147.45	-66.7	829.8	846.6	840.2	6.43	131.753		
1,597.9	1,597.3	1,704.3	1,691.6	2.8	4.4	146.69	-50.8	824.1	845.8	838.9	6.92	122.241 CC		
1,600.0	1,599.4	1,706.4	1,693.7	2.8	4.4	146.68	-50.5	823.9	845.8	838.9	6.93	122.053		
1,619.7	1,619.0	1,726.0	1,713.0	2.8	4.4	146.53	-47.3	822.8	845.9	838.8	7.03	120.320		
1,700.0	1,699.0	1,805.8	1,791.6	3.0	4.7	145.94	-34.3	818.0	846.2	838.7	7.44	113.694		
1,800.0	1,798.5	1,905.3	1,889.5	3.2	5.0	145.21	-18.1	812.1	846.7	838.8	7.96	106.349		
1,900.0	1,898.1	2,004.7	1,987.4	3.4	5.4	144.48	-1.8	806.2	847.4	838.9	8.49	99.860		
2,000.0	1,997.7	2,104.1	2,085.3	3.6	5.7	143.75	14.4	800.3	848.2	839.2	9.01	94.091		
2,100.0	2,097.3	2,203.5	2,183.2	3.9	6.1	143.03	30.6	794.4	849.1	839.6	9.55	88.934		
2,200.0	2,196.9	2,302.9	2,281.1	4.1	6.4	142.30	46.8	788.5	850.2	840.1	10.09	84.302		
2,300.0	2,296.5	2,402.3	2,379.0	4.3	6.8	141.58	63.1	782.6	851.5	840.8	10.63	80.121		
2,400.0	2,396.1	2,501.7	2,476.8	4.5	7.1	140.85	79.3	776.7	852.8	841.6	11.17	76.333		
2,500.0	2,495.7	2,601.1	2,574.7	4.7	7.5	140.13	95.5	770.8	854.3	842.6	11.72	72.887		
2,600.0	2,595.3	2,700.5	2,672.6	5.0	7.8	139.42	111.7	764.9	855.9	843.7	12.27	69.742		
2,700.0	2,694.8	2,799.9	2,770.5	5.2	8.1	138.70	127.9	759.0	857.7	844.9	12.83	66.861		
2,800.0	2,794.4	2,899.3	2,868.4	5.4	8.5	137.99	144.2	753.1	859.6	846.2	13.39	64.216		
2,900.0	2,894.0	2,998.7	2,966.3	5.6	8.8	137.29	160.4	747.2	861.6	847.7	13.95	61.779		
3,000.0	2,993.6	3,098.1	3,064.2	5.9	9.2	136.58	176.6	741.3	863.8	849.3	14.51	59.530		
3,100.0	3,093.2	3,197.5	3,162.1	6.1	9.5	135.88	192.8	735.4	866.1	851.0	15.08	57.448		
3,200.0	3,192.8	3,296.9	3,260.0	6.3	9.9	135.18	209.0	729.5	868.5	852.9	15.64	55.517		
3,300.0	3,292.4	3,396.3	3,357.9	6.5	10.2	134.49	225.3	723.6	871.1	854.9	16.21	53.723		
3,400.0	3,392.0	3,492.9	3,453.1	6.8	10.5	133.87	240.3	718.1	873.9	857.2	16.75	52.170		
3,500.0	3,491.6	3,589.5	3,548.7	7.0	10.8	133.36	253.9	713.1	877.2	860.0	17.26	50.811		
3,600.0	3,591.1	3,686.4	3,644.7	7.2	11.1	132.95	265.9	708.8	880.9	863.1	17.75	49.622		
3,700.0	3,690.7	3,783.5	3,741.1	7.5	11.3	132.65	276.5	704.9	884.9	866.7	18.21	48.584		
3,800.0	3,790.3	3,880.6	3,837.7	7.7	11.6	132.46	285.5	701.6	889.3	870.6	18.65	47.682		
3,900.0	3,889.9	3,977.8	3,934.6	7.9	11.8	132.37	293.0	698.9	893.9	874.9	19.06	46.902		
4,000.0	3,989.5	4,075.0	4,031.6	8.2	11.9	132.39	299.0	696.7	898.9	879.4	19.44	46.233		
4,100.0	4,089.1	4,172.1	4,128.6	8.4	12.1	132.51	303.4	695.1	904.1	884.3	19.80	45.666		
4,200.0	4,188.7	4,269.1	4,225.5	8.6	12.2	132.73	306.2	694.1	909.7	889.6	20.13	45.194		
4,300.0	4,288.3	4,365.9	4,322.3	8.9	12.3	133.05	307.6	693.6	915.6	895.2	20.43	44.812		
4,400.0	4,387.9	4,464.4	4,420.9	9.1	12.4	133.45	307.6	693.6	921.8	901.1	20.73	44.473		
4,500.0	4,487.4	4,564.0	4,520.4	9.3	12.6	133.85	307.6	693.6	928.1	907.1	21.02	44.144		
4,600.0	4,587.0	4,663.6	4,620.0	9.6	12.7	134.25	307.6	693.6	934.4	913.1	21.32	43.824		
4,700.0	4,686.6	4,763.2	4,719.6	9.8	12.8	134.65	307.6	693.6	940.8	919.1	21.62	43.514		
4,800.0	4,786.2	4,862.8	4,819.2	10.0	12.9	135.04	307.6	693.6	947.2	925.2	21.92	43.212		
4,900.0	4,885.8	4,962.4	4,918.8	10.3	13.0	135.42	307.6	693.6	953.6	931.4	22.22	42.919		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2D-26H - Hz - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,000.0	4,985.4	5,062.0	5,018.4	10.5	13.1	135.80	307.6	693.6	960.1	937.6	22.52	42.635		
5,100.0	5,085.0	5,161.5	5,118.0	10.7	13.2	136.17	307.6	693.6	966.6	943.8	22.82	42.358		
5,200.0	5,184.6	5,261.1	5,217.6	11.0	13.4	136.54	307.6	693.6	973.2	950.1	23.12	42.089		
5,300.0	5,284.2	5,360.7	5,317.2	11.2	13.5	136.90	307.6	693.6	979.8	956.4	23.43	41.827		
5,400.0	5,383.7	5,460.3	5,416.7	11.4	13.6	137.26	307.6	693.6	986.4	962.7	23.73	41.572		
5,500.0	5,483.3	5,559.9	5,516.3	11.7	13.7	137.62	307.6	693.6	993.1	969.1	24.03	41.324		
5,600.0	5,582.9	5,659.5	5,615.9	11.9	13.8	137.97	307.6	693.6	999.9	975.5	24.34	41.082		
5,700.0	5,682.5	5,759.1	5,715.5	12.1	14.0	138.31	307.6	693.6	1,006.6	982.0	24.64	40.847		
5,800.0	5,782.1	5,858.7	5,815.1	12.4	14.1	138.65	307.6	693.6	1,013.4	988.5	24.95	40.618		
5,900.0	5,881.7	5,958.3	5,914.7	12.6	14.2	138.99	307.6	693.6	1,020.2	995.0	25.26	40.395		
6,000.0	5,981.3	6,057.8	6,014.3	12.8	14.3	139.32	307.6	693.6	1,027.1	1,001.5	25.56	40.178		
6,100.0	6,080.9	6,157.4	6,113.9	13.1	14.5	139.64	307.6	693.6	1,034.0	1,008.1	25.87	39.966		
6,200.0	6,180.5	6,257.0	6,213.5	13.3	14.6	139.97	307.6	693.6	1,040.9	1,014.7	26.18	39.759		
6,300.0	6,280.0	6,356.6	6,313.0	13.5	14.7	140.28	307.6	693.6	1,047.9	1,021.4	26.49	39.558		
6,400.0	6,379.6	6,456.2	6,412.6	13.8	14.9	140.60	307.6	693.6	1,054.9	1,028.1	26.80	39.361		
6,500.0	6,479.2	6,555.8	6,512.2	14.0	15.0	140.91	307.6	693.6	1,061.9	1,034.8	27.11	39.169		
6,600.0	6,578.8	6,655.4	6,611.8	14.2	15.1	141.21	307.6	693.6	1,069.0	1,041.5	27.42	38.982		
6,700.0	6,678.4	6,755.0	6,711.4	14.5	15.3	141.51	307.6	693.6	1,076.1	1,048.3	27.73	38.800		
6,800.0	6,778.0	6,854.6	6,811.0	14.7	15.4	141.81	307.6	693.6	1,083.2	1,055.1	28.05	38.621		
6,900.0	6,877.6	6,954.1	6,910.6	14.9	15.5	142.11	307.6	693.6	1,090.3	1,062.0	28.36	38.447		
6,953.0	6,930.4	7,007.0	6,963.4	15.1	15.6	142.26	307.6	693.6	1,094.1	1,065.6	28.52	38.357		
7,000.0	6,977.2	7,053.6	7,010.1	15.1	15.7	-158.79	307.1	693.6	1,097.4	1,068.8	28.61	38.355		
7,050.0	7,027.0	7,103.1	7,059.4	15.2	15.7	-119.62	302.8	693.6	1,100.8	1,072.2	28.63	38.451		
7,100.0	7,076.2	7,152.6	7,108.1	15.2	15.6	-106.59	294.3	693.6	1,104.0	1,075.4	28.58	38.625		
7,150.0	7,124.6	7,202.0	7,155.8	15.3	15.5	-100.66	281.6	693.6	1,107.0	1,078.5	28.48	38.869		
7,200.0	7,171.8	7,251.3	7,202.2	15.2	15.4	-97.28	264.9	693.6	1,109.8	1,081.4	28.33	39.171		
7,250.0	7,217.4	7,300.6	7,247.0	15.2	15.3	-95.08	244.3	693.6	1,112.3	1,084.1	28.15	39.517		
7,300.0	7,261.1	7,350.0	7,289.8	15.2	15.2	-93.53	219.8	693.6	1,114.5	1,086.6	27.94	39.891		
7,350.0	7,302.5	7,399.1	7,330.3	15.2	15.0	-92.38	191.9	693.6	1,116.5	1,088.8	27.72	40.275		
7,400.0	7,341.3	7,448.4	7,388.2	15.1	14.8	-91.51	160.6	693.6	1,118.2	1,090.7	27.51	40.647		
7,450.0	7,377.2	7,497.5	7,403.4	15.1	14.6	-90.83	126.2	693.6	1,119.6	1,092.3	27.32	40.984		
7,500.0	7,410.0	7,546.7	7,435.4	15.1	14.5	-90.31	88.9	693.6	1,120.6	1,093.5	27.16	41.261		
7,550.0	7,439.4	7,595.9	7,464.1	15.2	14.3	-89.91	49.0	693.6	1,121.3	1,094.3	27.05	41.453		
7,600.0	7,465.2	7,645.0	7,489.2	15.2	14.2	-89.62	8.8	693.6	1,121.7	1,094.7	27.01	41.537		
7,650.0	7,487.1	7,694.1	7,510.7	15.3	14.1	-89.41	-37.3	693.6	1,121.8	1,094.7	27.04	41.493		
7,700.0	7,505.1	7,743.2	7,528.3	15.5	14.0	-89.30	-83.2	693.6	1,121.5	1,094.3	27.15	41.309		
7,750.0	7,518.9	7,792.3	7,541.9	15.7	14.0	-89.25	-130.3	693.6	1,120.9	1,093.5	27.35	40.977		
7,800.0	7,528.5	7,841.4	7,551.4	15.9	14.1	-89.28	-178.5	693.6	1,119.9	1,092.3	27.65	40.498		
7,850.0	7,533.9	7,890.6	7,556.7	16.2	14.2	-89.38	-227.3	693.6	1,118.6	1,090.6	28.05	39.881		
7,886.2	7,535.0	7,926.1	7,558.0	16.4	14.3	-89.49	-262.8	693.6	1,117.5	1,089.1	28.39	39.366		
7,900.0	7,535.0	7,939.9	7,558.0	16.5	14.3	-89.49	-276.6	693.6	1,117.1	1,088.5	28.54	39.135		
8,000.0	7,535.0	8,039.8	7,558.0	17.2	14.8	-89.49	-376.5	693.6	1,113.8	1,083.9	29.85	37.313		
8,100.0	7,535.0	8,139.8	7,558.0	18.1	15.4	-89.48	-476.5	693.6	1,110.4	1,079.0	31.47	35.282		
8,200.0	7,535.0	8,239.7	7,558.0	19.1	16.2	-89.48	-576.4	693.6	1,107.1	1,073.7	33.39	33.161		
8,300.0	7,535.0	8,339.6	7,558.0	20.2	17.2	-89.48	-676.4	693.6	1,103.8	1,068.3	35.54	31.055		
8,400.0	7,535.0	8,439.6	7,558.0	21.4	18.2	-89.48	-776.3	693.6	1,100.5	1,062.6	37.90	29.034		
8,500.0	7,535.0	8,539.5	7,558.0	22.7	19.4	-89.48	-876.2	693.6	1,097.2	1,056.8	40.43	27.136		
8,600.0	7,535.0	8,639.5	7,558.0	24.0	20.6	-89.48	-976.2	693.6	1,093.9	1,050.8	43.10	25.381		
8,700.0	7,535.0	8,739.4	7,558.0	25.4	22.0	-89.47	-1,076.1	693.6	1,090.6	1,044.7	45.88	23.770		
8,800.0	7,535.0	8,839.4	7,558.0	26.9	23.3	-89.47	-1,176.1	693.6	1,087.3	1,038.5	48.76	22.300		
8,900.0	7,535.0	8,939.3	7,558.0	28.3	24.8	-89.47	-1,276.0	693.6	1,084.0	1,032.2	51.71	20.962		
9,000.0	7,535.0	9,039.3	7,558.0	29.8	26.2	-89.47	-1,376.0	693.6	1,080.6	1,025.9	54.73	19.745		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2D-26H - Hz - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,100.0	7,535.0	9,139.2	7,558.0	31.3	27.7	-89.47	-1,475.9	693.6	1,077.3	1,019.5	57.81	18.637		
9,200.0	7,535.0	9,239.1	7,558.0	32.9	29.2	-89.47	-1,575.9	693.6	1,074.0	1,013.1	60.93	17.628		
9,300.0	7,535.0	9,339.1	7,558.0	34.4	30.8	-89.46	-1,675.8	693.6	1,070.7	1,006.6	64.09	16.706		
9,400.0	7,535.0	9,439.0	7,558.0	36.0	32.4	-89.46	-1,775.8	693.6	1,067.4	1,000.1	67.29	15.863		
9,500.0	7,535.0	9,539.0	7,558.0	37.6	33.9	-89.46	-1,875.7	693.7	1,064.1	993.6	70.51	15.090		
9,600.0	7,535.0	9,638.9	7,558.0	39.2	35.6	-89.46	-1,975.6	693.7	1,060.8	987.0	73.77	14.380		
9,700.0	7,535.0	9,738.9	7,558.0	40.9	37.2	-89.46	-2,075.6	693.7	1,057.5	980.4	77.04	13.726		
9,800.0	7,535.0	9,838.8	7,558.0	42.5	38.8	-89.46	-2,175.5	693.7	1,054.1	973.8	80.34	13.122		
9,900.0	7,535.0	9,938.8	7,558.0	44.1	40.4	-89.45	-2,275.5	693.7	1,050.8	967.2	83.65	12.562		
10,000.0	7,535.0	10,038.7	7,558.0	45.8	42.1	-89.45	-2,375.4	693.7	1,047.5	960.5	86.98	12.044		
10,100.0	7,535.0	10,138.7	7,558.0	47.4	43.7	-89.45	-2,475.4	693.7	1,044.2	953.9	90.32	11.562		
10,200.0	7,535.0	10,238.6	7,558.0	49.1	45.4	-89.45	-2,575.3	693.7	1,040.9	947.2	93.67	11.112		
10,300.0	7,535.0	10,338.5	7,558.0	50.8	47.1	-89.45	-2,675.3	693.7	1,037.6	940.6	97.04	10.693		
10,400.0	7,535.0	10,438.5	7,558.0	52.5	48.8	-89.45	-2,775.2	693.7	1,034.3	933.9	100.41	10.301		
10,500.0	7,535.0	10,538.4	7,558.0	54.1	50.4	-89.44	-2,875.1	693.7	1,031.0	927.2	103.79	9.933		
10,600.0	7,535.0	10,638.4	7,558.0	55.8	52.1	-89.44	-2,975.1	693.7	1,027.7	920.5	107.18	9.588		
10,700.0	7,535.0	10,738.3	7,558.0	57.5	53.8	-89.44	-3,075.0	693.7	1,024.3	913.8	110.58	9.263		
10,800.0	7,535.0	10,838.3	7,558.0	59.2	55.5	-89.44	-3,175.0	693.7	1,021.0	907.0	113.99	8.957		
10,900.0	7,535.0	10,938.2	7,558.0	60.9	57.2	-89.44	-3,274.9	693.7	1,017.7	900.3	117.40	8.669		
11,000.0	7,535.0	11,038.2	7,558.0	62.6	58.9	-89.43	-3,374.9	693.7	1,014.4	893.6	120.81	8.396		
11,100.0	7,535.0	11,138.1	7,558.0	64.3	60.6	-89.43	-3,474.8	693.7	1,011.1	886.9	124.23	8.139		
11,200.0	7,535.0	11,238.1	7,558.0	66.0	62.3	-89.43	-3,574.8	693.7	1,007.8	880.1	127.66	7.894		
11,300.0	7,535.0	11,338.0	7,558.0	67.7	64.0	-89.43	-3,674.7	693.7	1,004.5	873.4	131.09	7.662		
11,400.0	7,535.0	11,437.9	7,558.0	69.4	65.7	-89.43	-3,774.7	693.7	1,001.2	866.6	134.53	7.442		
11,496.2	7,535.0	11,534.1	7,558.0	71.1	67.4	-89.43	-3,870.8	693.7	998.0	860.1	137.83	7.241		
11,500.0	7,535.0	11,537.9	7,558.0	71.2	67.5	-89.43	-3,874.6	693.7	997.8	859.9	137.96	7.233		
11,600.0	7,535.0	11,637.8	7,558.0	72.9	69.2	-89.42	-3,974.5	693.7	994.5	853.1	141.40	7.033		
11,700.0	7,535.0	11,737.8	7,558.0	74.6	70.9	-89.42	-4,074.5	693.7	991.2	846.4	144.85	6.843		
11,800.0	7,535.0	11,837.7	7,558.0	76.3	72.6	-89.42	-4,174.4	693.7	987.9	839.6	148.30	6.662		
11,900.0	7,535.0	11,937.7	7,558.0	78.0	74.3	-89.42	-4,274.4	693.7	984.6	832.9	151.75	6.488		
12,000.0	7,535.0	12,037.6	7,558.0	79.7	76.0	-89.42	-4,374.3	693.7	981.3	826.1	155.20	6.323		
12,100.0	7,535.0	12,137.6	7,558.0	81.5	77.8	-89.41	-4,474.3	693.7	978.0	819.3	158.65	6.164		
12,200.0	7,535.0	12,237.5	7,558.0	83.2	79.5	-89.41	-4,574.2	693.7	974.7	812.6	162.11	6.012		
12,296.2	7,535.0	12,333.6	7,558.0	84.9	81.2	-89.41	-4,670.3	693.8	971.5	806.0	165.44	5.872		
12,300.0	7,535.0	12,337.4	7,558.0	84.9	81.2	-89.41	-4,674.2	693.8	971.4	805.8	165.59	5.866		
12,391.1	7,535.0	12,428.5	7,558.0	86.5	82.8	-89.41	-4,765.2	693.8	969.9	800.8	169.07	5.737		
12,400.0	7,535.0	12,437.4	7,558.0	86.6	82.9	-89.41	-4,774.1	693.8	969.9	800.5	169.41	5.725		
12,492.9	7,535.0	12,530.3	7,558.0	88.3	84.6	-89.41	-4,867.0	693.8	971.7	798.9	172.79	5.624 ES		
12,500.0	7,535.0	12,537.4	7,558.0	88.4	84.7	-89.41	-4,874.1	693.8	972.0	798.9	173.03	5.617		
12,600.0	7,535.0	12,637.3	7,558.0	90.1	86.4	-89.41	-4,974.1	693.8	975.5	799.0	176.50	5.527		
12,700.0	7,535.0	12,737.3	7,558.0	91.9	88.1	-89.41	-5,074.0	693.8	979.1	799.1	179.96	5.440		
12,800.0	7,535.0	12,837.2	7,558.0	93.6	89.9	-89.42	-5,173.9	693.8	982.6	799.2	183.43	5.357		
12,900.0	7,535.0	12,937.2	7,558.0	95.3	91.6	-89.42	-5,273.9	693.8	986.2	799.3	186.90	5.277		
13,000.0	7,535.0	13,037.1	7,558.0	97.1	93.3	-89.42	-5,373.8	693.8	989.7	799.4	190.37	5.199		
13,100.0	7,535.0	13,137.0	7,558.0	98.8	95.1	-89.42	-5,473.7	693.8	993.3	799.4	193.84	5.124		
13,200.0	7,535.0	13,237.0	7,558.0	100.5	96.8	-89.42	-5,573.7	693.8	996.8	799.5	197.32	5.052		
13,300.0	7,535.0	13,336.9	7,558.0	102.3	98.5	-89.43	-5,673.6	693.8	1,000.4	799.6	200.79	4.982		
13,400.0	7,535.0	13,435.3	7,558.0	104.0	100.2	-89.43	-5,772.0	693.8	1,004.0	799.7	204.24	4.916		
13,500.0	7,535.0	13,516.9	7,558.0	105.8	101.7	-89.43	-5,853.6	694.7	1,008.6	801.2	207.40	4.863		
13,600.0	7,535.0	13,600.0	7,558.0	107.5	103.1	-89.43	-5,936.7	697.1	1,015.0	804.4	210.58	4.820		
13,700.0	7,535.0	13,679.4	7,558.0	109.3	104.5	-89.44	-6,016.0	700.8	1,023.3	809.6	213.70	4.788		
13,800.0	7,535.0	13,760.3	7,558.0	111.0	105.9	-89.44	-6,096.7	706.1	1,033.3	816.5	216.84	4.765		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2D-26H - Hz - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
13,900.0	7,535.0	13,840.8	7,558.0	112.7	107.3	-89.45	-6,177.0	712.8	1,045.2	825.2	219.97	4.751		
14,000.0	7,535.0	13,921.0	7,558.0	114.5	108.6	-89.45	-6,256.7	720.9	1,058.8	835.7	223.09	4.746 SF		
14,100.0	7,535.0	14,000.0	7,558.0	116.2	110.0	-89.46	-6,335.2	730.3	1,074.2	848.0	226.19	4.749		
14,200.0	7,535.0	14,080.1	7,558.0	118.0	111.4	-89.47	-6,414.5	741.2	1,091.4	862.1	229.31	4.759		
14,300.0	7,535.0	14,158.9	7,558.0	119.7	112.7	-89.47	-6,492.3	753.4	1,110.3	877.9	232.40	4.777		
14,400.0	7,535.0	14,255.0	7,558.0	121.5	114.4	-89.48	-6,587.2	769.2	1,130.2	894.4	235.79	4.793		
14,500.0	7,535.0	14,353.0	7,558.0	123.2	116.1	-89.49	-6,683.8	785.3	1,150.1	910.9	239.21	4.808		
14,600.0	7,535.0	14,451.0	7,558.0	124.9	117.7	-89.50	-6,780.5	801.4	1,170.1	927.4	242.63	4.822		
14,672.4	7,535.0	14,521.9	7,558.0	126.2	119.0	-89.51	-6,850.4	813.0	1,184.5	939.4	245.11	4.832		
14,672.9	7,535.0	14,522.4	7,558.0	126.2	119.0	-89.51	-6,850.9	813.1	1,184.6	939.5	245.13	4.833		



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2E-26H - Hz - Plan #1													Offset Site Error: 0.0 ft			
Survey Program: 0-MWD															Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning			
0.0	0.0	33.0	33.0	0.0	0.1	103.50	-214.9	895.0	920.4							
100.0	100.0	133.0	133.0	0.2	0.2	103.50	-214.9	895.0	920.4	920.1	0.36	2,547.661				
150.3	150.3	183.3	183.3	0.2	0.3	103.50	-214.9	895.0	920.4	919.9	0.54	1,715.009	CC			
200.0	200.0	230.4	230.4	0.3	0.4	103.50	-214.9	895.0	920.5	919.8	0.71	1,303.694	ES			
300.0	300.0	322.6	322.6	0.5	0.5	103.43	-214.0	895.9	921.2	920.1	1.04	883.152				
400.0	400.0	414.8	414.7	0.7	0.7	103.29	-212.1	897.8	922.7	921.3	1.38	666.867				
500.0	500.0	506.8	506.6	0.8	0.9	103.07	-209.1	900.8	925.1	923.4	1.73	534.648				
600.0	600.0	600.0	599.7	1.0	1.1	102.77	-205.1	904.9	928.4	926.3	2.09	444.576				
700.0	700.0	690.3	689.7	1.2	1.3	102.41	-200.2	909.9	932.6	930.2	2.45	380.238				
800.0	800.0	781.7	780.7	1.4	1.5	101.97	-194.1	915.9	937.7	934.9	2.83	331.009				
900.0	900.0	872.8	871.3	1.5	1.7	101.46	-187.1	923.0	943.8	940.6	3.23	292.365				
1,000.0	1,000.0	963.6	961.4	1.7	1.9	100.89	-179.1	931.0	950.8	947.2	3.64	261.232				
1,100.0	1,100.0	1,054.0	1,050.8	1.9	2.2	100.26	-170.2	940.1	958.9	954.8	4.07	235.642				
1,200.0	1,200.0	1,143.9	1,139.7	2.1	2.5	151.79	-160.3	950.0	968.7	964.3	4.39	220.501				
1,300.0	1,300.0	1,236.8	1,231.1	2.2	2.8	151.04	-149.1	961.3	981.1	976.3	4.82	203.585				
1,400.0	1,399.9	1,335.1	1,327.9	2.4	3.1	150.29	-137.1	973.4	995.4	990.1	5.26	189.211				
1,500.0	1,499.7	1,433.2	1,424.6	2.6	3.4	149.59	-125.1	985.5	1,011.2	1,005.5	5.70	177.347				
1,600.0	1,599.4	1,531.2	1,521.1	2.8	3.8	148.96	-113.1	997.6	1,028.7	1,022.5	6.14	167.442				
1,619.7	1,619.0	1,550.5	1,540.1	2.8	3.8	148.84	-110.7	999.9	1,032.3	1,026.1	6.23	165.684				
1,700.0	1,699.0	1,629.1	1,617.5	3.0	4.1	148.45	-101.1	1,009.6	1,047.2	1,040.6	6.59	158.857				
1,800.0	1,798.5	1,727.0	1,713.9	3.2	4.4	147.98	-89.1	1,021.7	1,065.8	1,058.8	7.04	151.323				
1,900.0	1,898.1	1,824.8	1,810.3	3.4	4.8	147.52	-77.1	1,033.7	1,084.5	1,077.0	7.50	144.694				
2,000.0	1,997.7	1,922.7	1,906.7	3.6	5.1	147.08	-65.2	1,045.8	1,103.3	1,095.3	7.95	138.821				
2,100.0	2,097.3	2,020.6	2,003.0	3.9	5.5	146.65	-53.2	1,057.8	1,122.1	1,113.7	8.40	133.585				
2,200.0	2,196.9	2,118.4	2,099.4	4.1	5.8	146.24	-41.2	1,069.9	1,141.0	1,132.1	8.85	128.890				
2,300.0	2,296.5	2,216.3	2,195.8	4.3	6.1	145.84	-29.2	1,082.0	1,159.9	1,150.6	9.30	124.659				
2,400.0	2,396.1	2,314.2	2,292.2	4.5	6.5	145.45	-17.3	1,094.0	1,178.9	1,169.1	9.76	120.828				
2,500.0	2,495.7	2,412.1	2,388.6	4.7	6.8	145.08	-5.3	1,106.1	1,197.9	1,187.7	10.21	117.344				
2,600.0	2,595.3	2,509.9	2,485.0	5.0	7.2	144.71	6.7	1,118.1	1,217.0	1,206.4	10.66	114.163				
2,700.0	2,694.8	2,607.8	2,581.4	5.2	7.5	144.36	18.7	1,130.2	1,236.2	1,225.0	11.11	111.247				
2,800.0	2,794.4	2,705.7	2,677.7	5.4	7.8	144.02	30.7	1,142.3	1,255.3	1,243.8	11.56	108.567				
2,900.0	2,894.0	2,803.6	2,774.1	5.6	8.2	143.69	42.6	1,154.3	1,274.6	1,262.5	12.01	106.094				
3,000.0	2,993.6	2,901.4	2,870.5	5.9	8.5	143.37	54.6	1,166.4	1,293.8	1,281.3	12.46	103.806				
3,100.0	3,093.2	2,999.3	2,966.9	6.1	8.9	143.06	66.6	1,178.4	1,313.1	1,300.2	12.91	101.683				
3,200.0	3,192.8	3,097.2	3,063.3	6.3	9.2	142.76	78.6	1,190.5	1,332.4	1,319.1	13.36	99.709				
3,300.0	3,292.4	3,195.0	3,159.7	6.5	9.5	142.46	90.5	1,202.6	1,351.8	1,338.0	13.81	97.869				
3,400.0	3,392.0	3,292.9	3,256.1	6.8	9.9	142.18	102.5	1,214.6	1,371.2	1,356.9	14.26	96.150				
3,500.0	3,491.6	3,390.8	3,352.4	7.0	10.2	141.90	114.5	1,226.7	1,390.6	1,375.9	14.71	94.540				
3,600.0	3,591.1	3,488.7	3,448.8	7.2	10.6	141.63	126.5	1,238.7	1,410.1	1,395.0	15.16	93.029				
3,700.0	3,690.7	3,586.5	3,545.2	7.5	10.9	141.37	138.4	1,250.8	1,429.6	1,414.0	15.61	91.610				
3,800.0	3,790.3	3,684.4	3,641.6	7.7	11.3	141.11	150.4	1,262.9	1,449.1	1,433.1	16.05	90.273				
3,900.0	3,889.9	3,782.3	3,738.0	7.9	11.6	140.86	162.4	1,274.9	1,468.7	1,452.2	16.50	89.013				
4,000.0	3,989.5	3,880.2	3,834.4	8.2	11.9	140.62	174.4	1,287.0	1,488.2	1,471.3	16.95	87.822				
4,100.0	4,089.1	3,978.0	3,930.8	8.4	12.3	140.38	186.3	1,299.0	1,507.8	1,490.5	17.39	86.696				
4,200.0	4,188.7	4,075.9	4,027.1	8.6	12.6	140.15	198.3	1,311.1	1,527.5	1,509.6	17.84	85.629				
4,300.0	4,288.3	4,173.8	4,123.5	8.9	13.0	139.93	210.3	1,323.1	1,547.1	1,528.8	18.28	84.616				
4,400.0	4,387.9	4,271.6	4,219.9	9.1	13.3	139.71	222.3	1,335.2	1,566.8	1,548.1	18.73	83.655				
4,500.0	4,487.4	4,369.5	4,316.3	9.3	13.7	139.49	234.2	1,347.3	1,586.5	1,567.3	19.17	82.740				
4,600.0	4,587.0	4,467.4	4,412.7	9.6	14.0	139.29	246.2	1,359.3	1,606.2	1,586.6	19.62	81.870				
4,700.0	4,686.6	4,565.3	4,509.1	9.8	14.4	139.08	258.2	1,371.4	1,625.9	1,605.9	20.06	81.040				
4,800.0	4,786.2	4,663.1	4,605.4	10.0	14.7	138.89	270.2	1,383.4	1,645.7	1,625.2	20.51	80.248				
4,900.0	4,885.8	4,786.4	4,727.0	10.3	15.1	138.67	284.4	1,397.8	1,664.8	1,643.8	21.00	79.278				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2E-26H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
5,000.0	4,985.4	4,912.4	4,851.8	10.5	15.5	138.52	297.1	1,410.6	1,682.2	1,660.8	21.48	78.320		
5,100.0	5,085.0	5,039.3	4,977.7	10.7	15.8	138.43	307.9	1,421.4	1,698.1	1,676.1	21.94	77.384		
5,200.0	5,184.6	5,166.8	5,104.6	11.0	16.1	138.41	316.8	1,430.4	1,712.3	1,689.9	22.39	76.463		
5,300.0	5,284.2	5,294.9	5,232.3	11.2	16.3	138.45	323.7	1,437.3	1,724.8	1,702.0	22.83	75.551		
5,400.0	5,383.7	5,423.5	5,360.7	11.4	16.5	138.56	328.6	1,442.3	1,735.7	1,712.4	23.25	74.659		
5,500.0	5,483.3	5,552.3	5,489.5	11.7	16.7	138.72	331.5	1,445.2	1,744.9	1,721.2	23.65	73.776		
5,600.0	5,582.9	5,678.8	5,615.9	11.9	16.9	138.94	332.3	1,446.1	1,752.4	1,728.4	24.04	72.901		
5,700.0	5,682.5	5,778.4	5,715.5	12.1	17.0	139.14	332.3	1,446.1	1,759.2	1,734.9	24.38	72.146		
5,800.0	5,782.1	5,878.0	5,815.1	12.4	17.1	139.33	332.3	1,446.1	1,766.1	1,741.4	24.73	71.413		
5,900.0	5,881.7	5,977.5	5,914.7	12.6	17.2	139.52	332.3	1,446.1	1,773.0	1,747.9	25.08	70.701		
6,000.0	5,981.3	6,077.1	6,014.3	12.8	17.3	139.71	332.3	1,446.1	1,779.9	1,754.5	25.42	70.009		
6,100.0	6,080.9	6,176.7	6,113.9	13.1	17.4	139.89	332.3	1,446.1	1,786.9	1,761.1	25.77	69.336		
6,200.0	6,180.5	6,276.3	6,213.5	13.3	17.5	140.08	332.3	1,446.1	1,793.8	1,767.7	26.12	68.682		
6,300.0	6,280.0	6,375.9	6,313.0	13.5	17.6	140.27	332.3	1,446.1	1,800.8	1,774.3	26.46	68.045		
6,400.0	6,379.6	6,475.5	6,412.6	13.8	17.7	140.45	332.3	1,446.1	1,807.8	1,781.0	26.81	67.426		
6,500.0	6,479.2	6,575.1	6,512.2	14.0	17.8	140.63	332.3	1,446.1	1,814.8	1,787.6	27.16	66.823		
6,600.0	6,578.8	6,674.7	6,611.8	14.2	17.9	140.81	332.3	1,446.1	1,821.8	1,794.3	27.50	66.236		
6,700.0	6,678.4	6,777.4	6,714.4	14.5	18.0	141.09	329.3	1,446.1	1,828.8	1,801.0	27.80	65.776		
6,800.0	6,778.0	6,878.0	6,813.7	14.7	17.9	141.77	313.1	1,446.1	1,835.7	1,807.7	27.97	65.626		
6,900.0	6,877.6	6,970.9	6,902.4	14.9	17.8	142.77	285.9	1,446.1	1,842.9	1,814.9	28.04	65.723		
6,953.0	6,930.4	7,016.4	6,944.4	15.1	17.7	143.39	268.5	1,446.1	1,847.2	1,819.1	28.05	65.851		
7,000.0	6,977.2	7,055.2	6,979.3	15.1	17.6	-157.12	251.5	1,446.1	1,851.1	1,823.1	28.05	66.004		
7,050.0	7,027.0	7,095.9	7,014.9	15.2	17.5	-117.38	231.7	1,446.1	1,855.4	1,827.4	27.99	66.276		
7,100.0	7,076.2	7,136.2	7,048.9	15.2	17.4	-103.79	210.2	1,446.1	1,859.6	1,831.7	27.90	66.646		
7,150.0	7,124.6	7,176.1	7,081.4	15.3	17.2	-97.34	187.0	1,446.1	1,863.7	1,836.0	27.78	67.096		
7,200.0	7,171.8	7,215.6	7,112.2	15.2	17.1	-93.47	162.2	1,446.1	1,867.7	1,840.1	27.62	67.613		
7,250.0	7,217.4	7,254.9	7,141.4	15.2	17.0	-90.81	136.0	1,446.1	1,871.5	1,844.0	27.45	68.179		
7,300.0	7,261.1	7,293.9	7,169.0	15.2	16.9	-88.85	108.4	1,446.1	1,874.9	1,847.7	27.26	68.770		
7,350.0	7,302.5	7,332.7	7,194.9	15.2	16.8	-87.33	79.5	1,446.1	1,878.0	1,851.0	27.08	69.357		
7,400.0	7,341.3	7,371.3	7,219.1	15.1	16.7	-86.13	49.4	1,446.1	1,880.8	1,853.9	26.90	69.910		
7,450.0	7,377.2	7,409.8	7,241.5	15.1	16.6	-85.18	18.2	1,446.1	1,883.1	1,856.3	26.75	70.396		
7,500.0	7,410.0	7,450.0	7,263.1	15.1	16.5	-84.42	-15.7	1,446.1	1,884.9	1,858.3	26.63	70.793		
7,550.0	7,439.4	7,486.3	7,281.0	15.2	16.5	-83.85	-47.3	1,446.1	1,886.3	1,859.7	26.57	71.002		
7,600.0	7,465.2	7,524.5	7,298.0	15.2	16.4	-83.43	-81.5	1,446.1	1,887.1	1,860.6	26.56	71.046		
7,650.0	7,487.1	7,562.6	7,313.2	15.3	16.4	-83.16	-116.5	1,446.1	1,887.4	1,860.8	26.63	70.884		
7,700.0	7,505.1	7,600.0	7,326.3	15.5	16.4	-83.02	-151.5	1,446.1	1,887.2	1,860.5	26.77	70.496		
7,750.0	7,518.9	7,638.8	7,337.9	15.7	16.5	-83.01	-188.5	1,446.1	1,886.5	1,859.5	27.01	69.845		
7,800.0	7,528.5	7,677.0	7,347.3	15.9	16.5	-83.13	-225.5	1,446.1	1,885.2	1,857.9	27.34	68.956		
7,850.0	7,533.9	7,715.2	7,354.7	16.2	16.6	-83.37	-262.9	1,446.1	1,883.4	1,855.7	27.76	67.857		
7,886.2	7,535.0	7,742.8	7,358.9	16.4	16.7	-83.61	-290.3	1,446.1	1,881.8	1,853.7	28.11	66.944		
7,900.0	7,535.0	7,750.0	7,359.8	16.5	16.7	-83.64	-297.4	1,446.1	1,881.2	1,852.9	28.24	66.608		
8,000.0	7,535.0	7,830.9	7,365.0	17.2	17.0	-83.79	-378.1	1,446.1	1,877.2	1,847.7	29.51	63.608		
8,100.0	7,535.0	7,929.2	7,365.0	18.1	17.6	-83.78	-476.4	1,446.1	1,873.9	1,842.7	31.19	60.080		
8,200.0	7,535.0	8,029.2	7,365.0	19.1	18.3	-83.77	-576.4	1,446.1	1,870.6	1,837.5	33.14	56.438		
8,300.0	7,535.0	8,129.1	7,365.0	20.2	19.1	-83.76	-676.3	1,446.1	1,867.3	1,832.0	35.34	52.845		
8,400.0	7,535.0	8,229.1	7,365.0	21.4	20.1	-83.74	-776.3	1,446.1	1,864.0	1,826.3	37.72	49.413		
8,500.0	7,535.0	8,329.0	7,365.0	22.7	21.1	-83.73	-876.2	1,446.1	1,860.7	1,820.5	40.27	46.204		
8,600.0	7,535.0	8,429.0	7,365.0	24.0	22.3	-83.72	-976.2	1,446.1	1,857.5	1,814.5	42.95	43.242		
8,700.0	7,535.0	8,528.9	7,365.0	25.4	23.5	-83.71	-1,076.1	1,446.1	1,854.2	1,808.4	45.75	40.532		
8,800.0	7,535.0	8,628.9	7,365.0	26.9	24.8	-83.70	-1,176.0	1,446.1	1,850.9	1,802.2	48.63	38.063		
8,900.0	7,535.0	8,728.8	7,365.0	28.3	26.1	-83.69	-1,276.0	1,446.1	1,847.6	1,796.0	51.58	35.817		
9,000.0	7,535.0	8,828.7	7,365.0	29.8	27.5	-83.68	-1,375.9	1,446.1	1,844.3	1,789.7	54.60	33.777		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2E-26H - Hz - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis		
9,100.0	7,535.0	8,928.7	7,365.0	31.3	29.0	-83.67	-1,475.9	1,446.1	1,841.0	1,783.3	57.67	31.920	
9,200.0	7,535.0	9,028.6	7,365.0	32.9	30.4	-83.65	-1,575.8	1,446.1	1,837.7	1,776.9	60.79	30.230	
9,300.0	7,535.0	9,128.6	7,365.0	34.4	31.9	-83.64	-1,675.8	1,446.1	1,834.4	1,770.5	63.95	28.687	
9,400.0	7,535.0	9,228.5	7,365.0	36.0	33.4	-83.63	-1,775.7	1,446.1	1,831.1	1,764.0	67.13	27.276	
9,500.0	7,535.0	9,328.5	7,365.0	37.6	35.0	-83.62	-1,875.7	1,446.1	1,827.8	1,757.5	70.35	25.982	
9,600.0	7,535.0	9,428.4	7,365.0	39.2	36.5	-83.61	-1,975.6	1,446.1	1,824.5	1,751.0	73.59	24.793	
9,700.0	7,535.0	9,528.4	7,365.0	40.9	38.1	-83.60	-2,075.6	1,446.2	1,821.3	1,744.4	76.85	23.698	
9,800.0	7,535.0	9,628.3	7,365.0	42.5	39.7	-83.59	-2,175.5	1,446.2	1,818.0	1,737.8	80.13	22.687	
9,900.0	7,535.0	9,728.2	7,365.0	44.1	41.3	-83.57	-2,275.4	1,446.2	1,814.7	1,731.2	83.43	21.751	
10,000.0	7,535.0	9,828.2	7,365.0	45.8	42.9	-83.56	-2,375.4	1,446.2	1,811.4	1,724.6	86.74	20.883	
10,100.0	7,535.0	9,928.1	7,365.0	47.4	44.5	-83.55	-2,475.3	1,446.2	1,808.1	1,718.0	90.06	20.076	
10,200.0	7,535.0	10,028.1	7,365.0	49.1	46.2	-83.54	-2,575.3	1,446.2	1,804.8	1,711.4	93.40	19.323	
10,300.0	7,535.0	10,128.0	7,365.0	50.8	47.8	-83.53	-2,675.2	1,446.2	1,801.5	1,704.8	96.75	18.621	
10,400.0	7,535.0	10,228.0	7,365.0	52.5	49.5	-83.51	-2,775.2	1,446.2	1,798.2	1,698.1	100.10	17.964	
10,500.0	7,535.0	10,327.9	7,365.0	54.1	51.1	-83.50	-2,875.1	1,446.2	1,794.9	1,691.5	103.46	17.348	
10,600.0	7,535.0	10,427.9	7,365.0	55.8	52.8	-83.49	-2,975.1	1,446.2	1,791.6	1,684.8	106.83	16.770	
10,700.0	7,535.0	10,527.8	7,365.0	57.5	54.4	-83.48	-3,075.0	1,446.2	1,788.3	1,678.1	110.21	16.226	
10,800.0	7,535.0	10,627.8	7,365.0	59.2	56.1	-83.47	-3,174.9	1,446.2	1,785.1	1,671.5	113.60	15.714	
10,900.0	7,535.0	10,727.7	7,365.0	60.9	57.8	-83.45	-3,274.9	1,446.2	1,781.8	1,664.8	116.99	15.231	
11,000.0	7,535.0	10,827.6	7,365.0	62.6	59.5	-83.44	-3,374.8	1,446.2	1,778.5	1,658.1	120.38	14.774	
11,100.0	7,535.0	10,927.6	7,365.0	64.3	61.2	-83.43	-3,474.8	1,446.2	1,775.2	1,651.4	123.78	14.342	
11,200.0	7,535.0	11,027.5	7,365.0	66.0	62.9	-83.42	-3,574.7	1,446.2	1,771.9	1,644.7	127.18	13.932	
11,300.0	7,535.0	11,127.5	7,365.0	67.7	64.6	-83.41	-3,674.7	1,446.2	1,768.6	1,638.0	130.59	13.543	
11,400.0	7,535.0	11,227.4	7,365.0	69.4	66.3	-83.39	-3,774.6	1,446.2	1,765.3	1,631.3	134.00	13.174	
11,496.2	7,535.0	11,323.6	7,365.0	71.1	67.9	-83.38	-3,870.7	1,446.2	1,762.2	1,624.9	137.29	12.836	
11,500.0	7,535.0	11,327.4	7,365.0	71.2	68.0	-83.38	-3,874.6	1,446.2	1,762.0	1,624.6	137.42	12.823	
11,600.0	7,535.0	11,427.3	7,365.0	72.9	69.7	-83.37	-3,974.5	1,446.2	1,758.7	1,617.9	140.83	12.488	
11,700.0	7,535.0	11,527.3	7,365.0	74.6	71.4	-83.36	-4,074.5	1,446.2	1,755.5	1,611.2	144.25	12.169	
11,800.0	7,535.0	11,627.2	7,365.0	76.3	73.1	-83.34	-4,174.4	1,446.2	1,752.2	1,604.5	147.68	11.865	
11,900.0	7,535.0	11,727.2	7,365.0	78.0	74.8	-83.33	-4,274.3	1,446.2	1,748.9	1,597.8	151.10	11.574	
12,000.0	7,535.0	11,827.1	7,365.0	79.7	76.5	-83.32	-4,374.3	1,446.2	1,745.6	1,591.1	154.53	11.296	
12,100.0	7,535.0	11,927.0	7,365.0	81.5	78.2	-83.31	-4,474.2	1,446.2	1,742.3	1,584.3	157.96	11.030	
12,200.0	7,535.0	12,027.0	7,365.0	83.2	79.9	-83.29	-4,574.2	1,446.3	1,739.0	1,577.6	161.39	10.775	
12,296.2	7,535.0	12,123.1	7,365.0	84.9	81.6	-83.28	-4,670.3	1,446.3	1,735.8	1,571.2	164.69	10.540	
12,300.0	7,535.0	12,126.9	7,365.0	84.9	81.6	-83.28	-4,674.1	1,446.3	1,735.7	1,570.9	164.83	10.531	
12,391.1	7,535.0	12,218.0	7,365.0	86.5	83.2	-83.28	-4,765.2	1,446.3	1,734.3	1,566.4	167.90	10.329	
12,400.0	7,535.0	12,226.9	7,365.0	86.6	83.4	-83.28	-4,774.1	1,446.3	1,734.3	1,566.1	168.19	10.312	
12,492.9	7,535.0	12,319.8	7,365.0	88.3	84.9	-83.28	-4,867.0	1,446.3	1,736.1	1,564.9	171.15	10.144	
12,500.0	7,535.0	12,326.9	7,365.0	88.4	85.1	-83.28	-4,874.1	1,446.3	1,736.3	1,564.9	171.39	10.131	
12,600.0	7,535.0	12,426.8	7,365.0	90.1	86.8	-83.30	-4,974.0	1,446.3	1,739.9	1,565.0	174.84	9.951	
12,700.0	7,535.0	12,526.8	7,365.0	91.9	88.5	-83.31	-5,074.0	1,446.3	1,743.4	1,565.1	178.29	9.779	
12,800.0	7,535.0	12,626.7	7,365.0	93.6	90.2	-83.32	-5,173.9	1,446.3	1,746.9	1,565.2	181.74	9.612	
12,900.0	7,535.0	12,726.6	7,365.0	95.3	92.0	-83.34	-5,273.8	1,446.3	1,750.5	1,565.3	185.19	9.452	
13,000.0	7,535.0	12,826.6	7,365.0	97.1	93.7	-83.35	-5,373.8	1,446.3	1,754.0	1,565.3	188.64	9.298	
13,100.0	7,535.0	12,926.5	7,365.0	98.8	95.4	-83.36	-5,473.7	1,446.3	1,757.5	1,565.4	192.10	9.149	
13,200.0	7,535.0	13,026.4	7,365.0	100.5	97.1	-83.38	-5,573.6	1,446.3	1,761.0	1,565.5	195.55	9.005	
13,300.0	7,535.0	13,126.4	7,365.0	102.3	98.9	-83.39	-5,673.6	1,446.3	1,764.6	1,565.6	199.01	8.867	
13,400.0	7,535.0	13,226.3	7,365.0	104.0	100.6	-83.40	-5,773.5	1,446.3	1,768.1	1,565.6	202.47	8.733	
13,500.0	7,535.0	13,326.3	7,365.0	105.8	102.3	-83.42	-5,873.5	1,446.3	1,771.6	1,565.7	205.93	8.603	
13,600.0	7,535.0	13,426.2	7,365.0	107.5	104.1	-83.43	-5,973.4	1,446.3	1,775.2	1,565.8	209.39	8.478	
13,700.0	7,535.0	13,526.1	7,365.0	109.3	105.8	-83.44	-6,073.3	1,446.3	1,778.7	1,565.9	212.85	8.357	
13,800.0	7,535.0	13,626.1	7,365.0	111.0	107.5	-83.46	-6,173.3	1,446.3	1,782.2	1,565.9	216.32	8.239	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2E-26H - Hz - Plan #1													<b>Offset Site Error:</b> 0.0 ft
Survey Program: 0-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
13,900.0	7,535.0	13,726.0	7,365.0	112.7	109.3	-83.47	-6,273.2	1,446.3	1,785.8	1,566.0	219.78	8.125	
14,000.0	7,535.0	13,825.9	7,365.0	114.5	111.0	-83.48	-6,373.1	1,446.3	1,789.3	1,566.1	223.24	8.015	
14,100.0	7,535.0	13,925.9	7,365.0	116.2	112.7	-83.49	-6,473.1	1,446.3	1,792.8	1,566.1	226.71	7.908	
14,200.0	7,535.0	14,025.8	7,365.0	118.0	114.5	-83.51	-6,573.0	1,446.3	1,796.4	1,566.2	230.18	7.804	
14,300.0	7,535.0	14,125.8	7,365.0	119.7	116.2	-83.52	-6,672.9	1,446.3	1,799.9	1,566.3	233.64	7.704	
14,400.0	7,535.0	14,225.7	7,365.0	121.5	117.9	-83.53	-6,772.9	1,446.3	1,803.4	1,566.3	237.11	7.606	
14,500.0	7,535.0	14,325.6	7,365.0	123.2	119.7	-83.55	-6,872.8	1,446.3	1,807.0	1,566.4	240.58	7.511	
14,600.0	7,535.0	14,425.6	7,365.0	124.9	121.4	-83.56	-6,972.8	1,446.4	1,810.5	1,566.4	244.05	7.418	
14,672.4	7,535.0	14,490.6	7,365.0	126.2	122.5	-83.57	-7,037.8	1,446.4	1,813.1	1,566.6	246.44	7.357	
14,672.9	7,535.0	14,490.6	7,365.0	126.2	122.5	-83.57	-7,037.8	1,446.4	1,813.1	1,566.6	246.45	7.357 SF	





# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - SHAFER 12-35 (EXISTING) - Existing - SURVEYS													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	16.5	16.5	0.0	0.0	-176.16	-6,812.8	-457.7	6,828.1							
100.0	100.0	100.0	100.0	0.2	0.2	-176.16	-6,813.0	-457.4	6,828.4	6,828.1	0.33	N/A				
200.0	200.0	177.8	177.8	0.3	0.3	-176.16	-6,813.5	-456.8	6,828.9	6,828.3	0.64	N/A				
300.0	300.0	286.0	286.0	0.5	0.5	-176.17	-6,814.2	-456.2	6,829.6	6,828.6	1.00	6,816.440				
400.0	400.0	356.9	356.9	0.7	0.6	-176.18	-6,814.7	-455.6	6,830.3	6,829.0	1.30	5,247.049				
500.0	500.0	424.7	424.6	0.8	0.7	-176.18	-6,815.6	-454.7	6,831.5	6,829.9	1.60	4,278.569				
600.0	600.0	500.0	500.0	1.0	0.9	-176.19	-6,816.9	-453.5	6,833.1	6,831.2	1.91	3,585.657				
700.0	700.0	552.1	552.1	1.2	1.0	-176.20	-6,818.1	-452.9	6,835.2	6,833.0	2.17	3,144.137				
800.0	800.0	624.2	624.1	1.4	1.1	-176.20	-6,820.2	-452.5	6,838.0	6,835.6	2.48	2,760.240				
900.0	900.0	775.9	775.8	1.5	1.4	-176.20	-6,823.8	-453.2	6,840.3	6,837.4	2.92	2,342.981				
1,000.0	1,000.0	863.9	863.8	1.7	1.5	-176.20	-6,825.7	-453.4	6,842.5	6,839.3	3.25	2,104.978				
1,100.0	1,100.0	951.9	951.8	1.9	1.7	-176.20	-6,827.8	-453.3	6,845.0	6,841.4	3.58	1,911.153				
1,200.0	1,200.0	1,116.2	1,116.0	2.1	2.0	-123.95	-6,831.2	-454.7	6,847.7	6,843.6	4.02	1,703.119				
1,300.0	1,300.0	1,225.9	1,225.7	2.2	2.2	-123.93	-6,832.8	-456.3	6,850.6	6,846.2	4.39	1,561.814				
1,400.0	1,399.9	1,348.2	1,348.0	2.4	2.4	-123.92	-6,834.2	-457.8	6,854.3	6,849.5	4.78	1,434.965				
1,500.0	1,499.7	1,463.1	1,462.8	2.6	2.6	-123.92	-6,835.2	-459.2	6,858.7	6,853.5	5.16	1,329.785				
1,600.0	1,599.4	1,554.7	1,554.4	2.8	2.7	-123.92	-6,835.9	-460.4	6,863.9	6,858.4	5.50	1,247.039				
1,619.7	1,619.0	1,570.6	1,570.3	2.8	2.8	-123.92	-6,836.1	-460.5	6,865.1	6,859.5	5.57	1,232.692				
1,700.0	1,699.0	1,631.3	1,631.0	3.0	2.9	-123.95	-6,836.7	-461.2	6,870.1	6,864.3	5.83	1,178.349				
1,800.0	1,798.5	1,705.1	1,704.8	3.2	3.0	-123.99	-6,837.8	-462.2	6,876.7	6,870.5	6.16	1,117.223				
1,900.0	1,898.1	1,822.5	1,822.2	3.4	3.2	-124.05	-6,839.5	-463.8	6,883.3	6,876.7	6.56	1,049.411				
2,000.0	1,997.7	1,922.9	1,922.5	3.6	3.4	-124.10	-6,840.8	-465.3	6,889.8	6,882.8	6.94	993.389				
2,100.0	2,097.3	2,017.5	2,017.1	3.9	3.6	-124.15	-6,842.1	-466.7	6,896.4	6,889.1	7.30	944.172				
2,200.0	2,196.9	2,139.5	2,139.1	4.1	3.8	-124.21	-6,843.6	-468.5	6,902.8	6,895.0	7.72	893.881				
2,300.0	2,296.5	2,257.1	2,256.7	4.3	4.0	-124.27	-6,844.7	-470.2	6,908.9	6,900.8	8.13	849.376				
2,400.0	2,396.1	2,367.2	2,366.7	4.5	4.2	-124.33	-6,845.5	-471.9	6,914.8	6,906.3	8.53	810.274				
2,500.0	2,495.7	2,466.8	2,466.4	4.7	4.4	-124.38	-6,846.1	-473.3	6,920.7	6,911.8	8.92	776.173				
2,600.0	2,595.3	2,535.3	2,534.9	5.0	4.5	-124.41	-6,846.7	-474.2	6,926.7	6,917.5	9.25	749.219				
2,700.0	2,694.8	2,600.0	2,599.5	5.2	4.6	-124.45	-6,847.7	-475.2	6,933.4	6,923.8	9.57	724.624				
2,800.0	2,794.4	2,841.0	2,840.5	5.4	5.0	-124.57	-6,849.1	-478.1	6,939.2	6,929.0	10.20	680.358				
2,900.0	2,894.0	3,020.3	3,019.8	5.6	5.3	-124.68	-6,847.3	-477.8	6,943.3	6,932.6	10.72	647.657				
3,000.0	2,993.6	3,113.5	3,112.9	5.9	5.5	-124.75	-6,846.0	-476.9	6,947.0	6,935.9	11.09	626.273				
3,100.0	3,093.2	3,238.7	3,238.1	6.1	5.7	-124.83	-6,844.2	-476.0	6,950.7	6,939.2	11.52	603.300				
3,200.0	3,192.8	3,416.2	3,415.6	6.3	6.0	-124.93	-6,839.9	-476.4	6,953.5	6,941.4	12.04	577.396				
3,300.0	3,292.4	3,508.7	3,508.0	6.5	6.1	-124.98	-6,837.2	-478.1	6,955.9	6,943.4	12.42	560.139				
3,400.0	3,392.0	3,620.5	3,619.8	6.8	6.3	-125.02	-6,833.8	-480.9	6,958.1	6,945.3	12.83	542.394				
3,500.0	3,491.6	3,701.8	3,701.0	7.0	6.5	-125.05	-6,831.4	-483.4	6,960.5	6,947.3	13.19	527.871				
3,600.0	3,591.1	3,800.0	3,799.1	7.2	6.7	-125.08	-6,828.6	-486.8	6,963.0	6,949.5	13.57	512.950				
3,700.0	3,690.7	3,881.5	3,880.5	7.5	6.8	-125.10	-6,826.4	-490.0	6,965.7	6,951.8	13.93	499.878				
3,800.0	3,790.3	4,001.8	4,000.7	7.7	7.0	-125.13	-6,823.1	-495.7	6,968.4	6,954.1	14.37	485.015				
3,900.0	3,889.9	4,100.0	4,098.7	7.9	7.2	-125.15	-6,820.2	-500.6	6,970.9	6,956.1	14.76	472.292				
4,000.0	3,989.5	4,191.4	4,190.0	8.2	7.4	-125.17	-6,817.6	-504.2	6,973.4	6,958.3	15.14	460.664				
4,100.0	4,089.1	4,287.9	4,286.4	8.4	7.5	-125.21	-6,815.0	-506.8	6,976.1	6,960.6	15.52	449.414				
4,200.0	4,188.7	4,384.3	4,382.7	8.6	7.7	-125.25	-6,812.5	-508.7	6,978.9	6,963.0	15.91	438.719				
4,300.0	4,288.3	4,500.0	4,498.4	8.9	7.9	-125.30	-6,809.4	-510.6	6,981.5	6,965.2	16.32	427.665				
4,400.0	4,387.9	4,585.9	4,584.3	9.1	8.1	-125.35	-6,807.1	-511.6	6,984.2	6,967.5	16.69	418.484				
4,500.0	4,487.4	4,672.7	4,671.0	9.3	8.2	-125.39	-6,805.0	-512.5	6,987.0	6,970.0	17.06	409.670				
4,600.0	4,587.0	4,764.6	4,762.9	9.6	8.4	-125.44	-6,802.9	-513.4	6,990.0	6,972.6	17.43	401.028				
4,700.0	4,686.6	4,844.3	4,842.5	9.8	8.5	-125.48	-6,801.2	-514.3	6,993.2	6,975.4	17.78	393.239				
4,800.0	4,786.2	4,922.9	4,921.1	10.0	8.7	-125.52	-6,799.8	-514.9	6,996.7	6,978.6	18.13	385.816				
4,900.0	4,885.8	5,047.4	5,045.6	10.3	8.9	-125.59	-6,797.6	-516.1	7,000.3	6,981.8	18.57	377.039				
5,000.0	4,985.4	5,173.1	5,171.2	10.5	9.1	-125.65	-6,794.8	-517.6	7,003.4	6,984.4	19.00	368.575				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - SHAFER 12-35 (EXISTING) - Existing - SURVEYS													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			
5,100.0	5,085.0	5,267.6	5,265.7	10.7	9.3	-125.70	-6,792.5	-518.7	7,006.3	6,986.9	19.38	361.519				
5,200.0	5,184.6	5,374.3	5,372.4	11.0	9.5	-125.76	-6,790.1	-519.1	7,009.4	6,989.6	19.78	354.384				
5,300.0	5,284.2	5,492.2	5,490.3	11.2	9.7	-125.82	-6,787.2	-519.3	7,012.2	6,992.0	20.20	347.190				
5,400.0	5,383.7	5,611.4	5,609.4	11.4	9.9	-125.89	-6,783.8	-519.8	7,014.7	6,994.1	20.62	340.225				
5,500.0	5,483.3	5,726.1	5,724.1	11.7	10.1	-125.95	-6,780.3	-520.7	7,017.0	6,996.0	21.03	333.630				
5,600.0	5,582.9	5,800.0	5,797.9	11.9	10.2	-125.99	-6,778.0	-521.4	7,019.3	6,997.9	21.38	328.376				
5,700.0	5,682.5	5,871.7	5,869.6	12.1	10.3	-126.03	-6,776.1	-522.1	7,022.0	7,000.2	21.72	323.362				
5,800.0	5,782.1	5,944.6	5,942.4	12.4	10.5	-126.06	-6,774.5	-522.9	7,025.2	7,003.1	22.06	318.495				
5,900.0	5,881.7	6,042.5	6,040.3	12.6	10.6	-126.11	-6,772.6	-524.2	7,028.6	7,006.2	22.44	313.174				
6,000.0	5,981.3	6,161.8	6,159.6	12.8	10.8	-126.17	-6,770.1	-525.7	7,031.9	7,009.0	22.87	307.529				
6,100.0	6,080.9	6,250.8	6,248.5	13.1	11.0	-126.21	-6,768.1	-526.6	7,035.0	7,011.8	23.23	302.781				
6,200.0	6,180.5	6,325.4	6,323.1	13.3	11.1	-126.25	-6,766.6	-527.1	7,038.5	7,014.9	23.58	298.513				
6,300.0	6,280.0	6,400.0	6,397.8	13.5	11.3	-126.29	-6,765.5	-527.6	7,042.3	7,018.4	23.92	294.384				
6,400.0	6,379.6	6,472.0	6,469.7	13.8	11.4	-126.33	-6,764.6	-528.0	7,046.6	7,022.3	24.26	290.443				
6,500.0	6,479.2	6,551.0	6,548.8	14.0	11.5	-126.38	-6,764.0	-528.6	7,051.1	7,026.5	24.61	286.478				
6,600.0	6,578.8	6,638.6	6,636.3	14.2	11.7	-126.42	-6,763.5	-529.6	7,056.0	7,031.0	24.98	282.452				
6,700.0	6,678.4	6,759.9	6,757.6	14.5	11.9	-126.47	-6,762.8	-532.5	7,060.8	7,035.4	25.41	277.862				
6,800.0	6,778.0	6,880.5	6,878.2	14.7	12.1	-126.51	-6,761.4	-536.2	7,065.2	7,039.3	25.84	273.420				
6,900.0	6,877.6	6,974.7	6,972.3	14.9	12.3	-126.55	-6,760.4	-538.0	7,069.5	7,043.3	26.22	269.636				
6,953.0	6,930.4	7,022.9	7,020.5	15.1	12.4	-126.57	-6,759.9	-538.5	7,071.8	7,045.4	26.42	267.712				
7,000.0	6,977.2	7,065.3	7,062.9	15.1	12.4	-68.04	-6,759.5	-538.8	7,072.0	7,045.5	26.56	266.246				
7,050.0	7,027.0	7,100.0	7,097.6	15.2	12.5	-29.25	-6,759.2	-539.0	7,068.0	7,041.5	26.56	266.119				
7,100.0	7,076.2	7,146.1	7,143.7	15.2	12.6	-16.56	-6,758.8	-539.0	7,059.8	7,033.4	26.43	267.086				
7,150.0	7,124.6	7,182.8	7,180.4	15.3	12.7	-10.92	-6,758.6	-538.9	7,047.4	7,021.2	26.15	269.502				
7,200.0	7,171.8	7,228.2	7,225.8	15.2	12.7	-7.78	-6,758.4	-538.7	7,030.8	7,005.1	25.75	273.087				
7,250.0	7,217.4	7,280.4	7,278.0	15.2	12.8	-5.76	-6,758.2	-538.4	7,010.2	6,985.0	25.23	277.904				
7,300.0	7,261.1	7,328.2	7,325.7	15.2	12.9	-4.32	-6,757.9	-538.2	6,985.7	6,961.1	24.58	284.205				
7,350.0	7,302.5	7,372.0	7,369.6	15.2	13.0	-3.21	-6,757.6	-538.0	6,957.5	6,933.7	23.82	292.040				
7,400.0	7,341.3	7,413.9	7,411.5	15.1	13.1	-2.28	-6,757.4	-537.8	6,925.8	6,902.8	22.98	301.422				
7,450.0	7,377.2	7,454.2	7,451.8	15.1	13.1	-1.44	-6,757.1	-537.5	6,890.8	6,868.7	22.06	312.355				
7,500.0	7,410.0	7,490.9	7,488.5	15.1	13.2	-0.60	-6,756.8	-537.2	6,852.8	6,831.7	21.10	324.809				
7,550.0	7,439.4	7,515.2	7,512.8	15.2	13.2	0.29	-6,756.6	-537.0	6,812.1	6,792.0	20.11	338.756				
7,600.0	7,465.2	7,533.7	7,531.3	15.2	13.3	1.35	-6,756.5	-536.9	6,769.1	6,750.0	19.14	353.599				
7,650.0	7,487.1	7,549.5	7,547.0	15.3	13.3	2.73	-6,756.4	-536.8	6,724.1	6,705.8	18.26	368.332				
7,700.0	7,505.1	7,562.4	7,559.9	15.5	13.3	4.73	-6,756.3	-536.7	6,677.3	6,659.8	17.52	381.146				
7,750.0	7,518.9	7,572.3	7,569.9	15.7	13.3	8.08	-6,756.2	-536.7	6,629.3	6,612.2	17.08	388.171				
7,800.0	7,528.5	7,579.2	7,576.8	15.9	13.3	15.14	-6,756.2	-536.6	6,580.2	6,562.8	17.41	378.028				
7,850.0	7,533.9	7,582.9	7,580.5	16.2	13.3	37.78	-6,756.2	-536.6	6,530.5	6,509.1	21.42	304.904				
7,886.2	7,535.0	7,583.7	7,581.3	16.4	13.3	94.23	-6,756.2	-536.6	6,494.4	6,466.7	27.71	234.340				
7,900.0	7,535.0	7,583.7	7,581.2	16.5	13.3	94.23	-6,756.2	-536.6	6,480.6	6,452.8	27.82	232.974				
8,000.0	7,535.0	7,583.4	7,581.0	17.2	13.3	94.18	-6,756.2	-536.6	6,380.8	6,352.1	28.66	222.660				
8,100.0	7,535.0	7,583.1	7,580.7	18.1	13.3	94.14	-6,756.2	-536.6	6,280.9	6,251.2	29.64	211.895				
8,200.0	7,535.0	7,582.9	7,580.4	19.1	13.3	94.09	-6,756.2	-536.6	6,181.0	6,150.3	30.75	201.032				
8,300.0	7,535.0	7,582.6	7,580.2	20.2	13.3	94.04	-6,756.2	-536.6	6,081.2	6,049.2	31.95	190.331				
8,400.0	7,535.0	7,582.3	7,579.9	21.4	13.3	94.00	-6,756.2	-536.6	5,981.3	5,948.1	33.24	179.967				
8,500.0	7,535.0	7,582.1	7,579.6	22.7	13.3	93.95	-6,756.2	-536.6	5,881.5	5,846.9	34.59	170.047				
8,600.0	7,535.0	7,581.8	7,579.4	24.0	13.3	93.90	-6,756.2	-536.6	5,781.6	5,745.6	35.99	160.628				
8,700.0	7,535.0	7,581.5	7,579.1	25.4	13.3	93.85	-6,756.2	-536.6	5,681.8	5,644.3	37.45	151.734				
8,800.0	7,535.0	7,581.2	7,578.8	26.9	13.3	93.81	-6,756.2	-536.6	5,582.0	5,543.0	38.94	143.365				
8,900.0	7,535.0	7,581.0	7,578.5	28.3	13.3	93.76	-6,756.2	-536.6	5,482.1	5,441.7	40.46	135.508				
9,000.0	7,535.0	7,580.7	7,578.3	29.8	13.3	93.71	-6,756.2	-536.6	5,382.3	5,340.3	42.00	128.139				
9,100.0	7,535.0	7,580.4	7,578.0	31.3	13.3	93.66	-6,756.2	-536.6	5,282.5	5,238.9	43.57	121.232				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - SHAFER 12-35 (EXISTING) - Existing - SURVEYS													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		
9,200.0	7,535.0	7,580.1	7,577.7	32.9	13.3	93.61	-6,756.2	-536.6	5,182.7	5,137.6	45.16	114.756		
9,300.0	7,535.0	7,579.8	7,577.4	34.4	13.3	93.56	-6,756.2	-536.6	5,082.9	5,036.1	46.77	108.682		
9,400.0	7,535.0	7,579.5	7,577.1	36.0	13.3	93.51	-6,756.2	-536.6	4,983.1	4,934.7	48.39	102.982		
9,500.0	7,535.0	7,579.2	7,576.8	37.6	13.3	93.46	-6,756.2	-536.6	4,883.4	4,833.3	50.02	97.626		
9,600.0	7,535.0	7,578.9	7,576.5	39.2	13.3	93.40	-6,756.2	-536.6	4,783.6	4,731.9	51.66	92.590		
9,700.0	7,535.0	7,578.6	7,576.2	40.9	13.3	93.35	-6,756.2	-536.6	4,683.8	4,630.5	53.32	87.849		
9,800.0	7,535.0	7,578.3	7,575.9	42.5	13.3	93.30	-6,756.2	-536.6	4,584.1	4,529.1	54.98	83.381		
9,900.0	7,535.0	7,578.0	7,575.6	44.1	13.3	93.25	-6,756.2	-536.6	4,484.3	4,427.7	56.65	79.164		
10,000.0	7,535.0	7,577.7	7,575.3	45.8	13.3	93.19	-6,756.2	-536.6	4,384.6	4,326.3	58.32	75.180		
10,100.0	7,535.0	7,577.4	7,575.0	47.4	13.3	93.14	-6,756.2	-536.6	4,284.9	4,224.9	60.00	71.412		
10,200.0	7,535.0	7,577.1	7,574.7	49.1	13.3	93.09	-6,756.2	-536.6	4,185.2	4,123.5	61.69	67.843		
10,300.0	7,535.0	7,576.8	7,574.4	50.8	13.3	93.03	-6,756.2	-536.6	4,085.5	4,022.1	63.38	64.460		
10,400.0	7,535.0	7,576.5	7,574.1	52.5	13.3	92.98	-6,756.2	-536.6	3,985.9	3,920.8	65.08	61.249		
10,500.0	7,535.0	7,576.2	7,573.7	54.1	13.3	92.92	-6,756.2	-536.6	3,886.2	3,819.4	66.78	58.198		
10,600.0	7,535.0	7,575.8	7,573.4	55.8	13.3	92.86	-6,756.2	-536.6	3,786.6	3,718.1	68.48	55.295		
10,700.0	7,535.0	7,575.5	7,573.1	57.5	13.3	92.81	-6,756.2	-536.6	3,687.0	3,616.8	70.19	52.531		
10,800.0	7,535.0	7,575.2	7,572.8	59.2	13.3	92.75	-6,756.2	-536.6	3,587.4	3,515.5	71.90	49.897		
10,900.0	7,535.0	7,574.8	7,572.4	60.9	13.3	92.69	-6,756.2	-536.6	3,487.8	3,414.2	73.61	47.384		
11,000.0	7,535.0	7,574.5	7,572.1	62.6	13.3	92.63	-6,756.2	-536.7	3,388.3	3,312.9	75.32	44.983		
11,100.0	7,535.0	7,574.2	7,571.8	64.3	13.3	92.58	-6,756.2	-536.7	3,288.7	3,211.7	77.04	42.689		
11,200.0	7,535.0	7,573.8	7,571.4	66.0	13.3	92.52	-6,756.2	-536.7	3,189.3	3,110.5	78.76	40.494		
11,300.0	7,535.0	7,573.5	7,571.1	67.7	13.3	92.46	-6,756.2	-536.7	3,089.8	3,009.3	80.48	38.392		
11,400.0	7,535.0	7,573.1	7,570.7	69.4	13.3	92.40	-6,756.2	-536.7	2,990.4	2,908.2	82.20	36.378		
11,496.2	7,535.0	7,572.8	7,570.4	71.1	13.3	92.34	-6,756.2	-536.7	2,894.8	2,810.9	83.86	34.518		
11,500.0	7,535.0	7,572.8	7,570.4	71.2	13.3	92.33	-6,756.2	-536.7	2,891.0	2,807.1	83.93	34.446		
11,600.0	7,535.0	7,572.4	7,570.0	72.9	13.3	92.27	-6,756.2	-536.7	2,791.7	2,706.0	85.66	32.592		
11,700.0	7,535.0	7,572.1	7,569.7	74.6	13.3	92.21	-6,756.2	-536.7	2,692.4	2,605.0	87.38	30.811		
11,800.0	7,535.0	7,571.7	7,569.3	76.3	13.3	92.15	-6,756.2	-536.7	2,593.2	2,504.1	89.11	29.100		
11,900.0	7,535.0	7,571.4	7,568.9	78.0	13.3	92.09	-6,756.3	-536.7	2,494.0	2,403.2	90.84	27.454		
12,000.0	7,535.0	7,571.0	7,568.6	79.7	13.3	92.02	-6,756.3	-536.7	2,394.9	2,302.3	92.58	25.870		
12,100.0	7,535.0	7,570.6	7,568.2	81.5	13.3	91.96	-6,756.3	-536.7	2,295.9	2,201.6	94.31	24.345		
12,200.0	7,535.0	7,570.3	7,567.8	83.2	13.3	91.89	-6,756.3	-536.7	2,197.0	2,100.9	96.04	22.875		
12,296.2	7,535.0	7,569.9	7,567.5	84.9	13.3	91.83	-6,756.3	-536.7	2,101.9	2,004.2	97.71	21.512		
12,300.0	7,535.0	7,569.9	7,567.5	84.9	13.3	91.84	-6,756.3	-536.7	2,098.1	2,000.4	97.79	21.457		
12,400.0	7,535.0	7,569.5	7,567.1	86.6	13.3	92.27	-6,756.3	-536.7	1,999.2	1,899.5	99.69	20.053		
12,492.9	7,535.0	7,569.1	7,566.7	88.3	13.3	92.90	-6,756.3	-536.7	1,906.8	1,805.5	101.36	18.813		
12,500.0	7,535.0	7,569.1	7,566.7	88.4	13.3	92.89	-6,756.3	-536.7	1,899.8	1,798.3	101.48	18.721		
12,600.0	7,535.0	7,568.7	7,566.2	90.1	13.3	92.76	-6,756.3	-536.7	1,800.3	1,697.1	103.22	17.441		
12,700.0	7,535.0	7,568.2	7,565.8	91.9	13.3	92.64	-6,756.3	-536.7	1,700.9	1,596.0	104.97	16.204		
12,800.0	7,535.0	7,567.8	7,565.4	93.6	13.3	92.51	-6,756.3	-536.7	1,601.6	1,494.9	106.71	15.009		
12,900.0	7,535.0	7,567.4	7,565.0	95.3	13.3	92.38	-6,756.3	-536.7	1,502.4	1,393.9	108.46	13.852		
13,000.0	7,535.0	7,567.0	7,564.5	97.1	13.3	92.25	-6,756.3	-536.7	1,403.3	1,293.1	110.20	12.733		
13,100.0	7,535.0	7,566.5	7,564.1	98.8	13.3	92.12	-6,756.3	-536.7	1,304.3	1,192.3	111.95	11.650		
13,200.0	7,535.0	7,566.1	7,563.7	100.5	13.3	91.99	-6,756.3	-536.7	1,205.4	1,091.7	113.70	10.602		
13,300.0	7,535.0	7,565.6	7,563.2	102.3	13.3	91.85	-6,756.3	-536.7	1,106.8	991.4	115.45	9.588		
13,400.0	7,535.0	7,565.2	7,562.7	104.0	13.3	91.72	-6,756.3	-536.7	1,008.5	891.3	117.19	8.605		
13,500.0	7,535.0	7,564.7	7,562.3	105.8	13.3	91.58	-6,756.3	-536.7	910.5	791.6	118.94	7.655		
13,600.0	7,535.0	7,564.2	7,561.8	107.5	13.3	91.44	-6,756.3	-536.7	813.0	692.3	120.69	6.737		
13,700.0	7,535.0	7,563.8	7,561.4	109.3	13.3	91.30	-6,756.3	-536.7	716.2	593.8	122.44	5.850		
13,800.0	7,535.0	7,563.3	7,560.9	111.0	13.3	91.16	-6,756.3	-536.7	620.4	496.3	124.18	4.996		
13,900.0	7,535.0	7,562.8	7,560.4	112.7	13.3	91.02	-6,756.3	-536.7	526.2	400.3	125.93	4.179		
14,000.0	7,535.0	7,562.3	7,559.9	114.5	13.3	90.87	-6,756.3	-536.7	434.6	307.0	127.68	3.404		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - SHAFER 12-35 (EXISTING) - Existing - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
14,100.0	7,535.0	7,561.9	7,559.4	116.2	13.3	90.73	-6,756.3	-536.7	347.7	218.3	129.43	2.686		
14,200.0	7,535.0	7,561.4	7,558.9	118.0	13.3	90.58	-6,756.3	-536.7	269.9	138.7	131.17	2.058		
14,300.0	7,535.0	7,560.9	7,558.4	119.7	13.3	90.43	-6,756.3	-536.7	211.7	78.8	132.92	1.593		
14,390.1	7,535.0	7,560.4	7,558.0	121.3	13.3	90.29	-6,756.3	-536.7	191.6	57.1	134.49	1.424	Level 3, CC, ES, SF	
14,400.0	7,535.0	7,560.4	7,557.9	121.5	13.3	90.28	-6,756.3	-536.7	191.8	57.2	134.66	1.424	Level 3	
14,500.0	7,535.0	7,559.8	7,557.4	123.2	13.3	90.13	-6,756.3	-536.7	220.8	84.4	136.41	1.619		
14,600.0	7,535.0	7,559.3	7,556.9	124.9	13.3	89.97	-6,756.3	-536.7	284.1	146.0	138.16	2.057		
14,672.4	7,535.0	7,558.9	7,556.5	126.2	13.3	89.86	-6,756.3	-536.7	341.1	201.7	139.42	2.447		
14,672.9	7,535.0	7,558.9	7,556.5	126.2	13.3	89.86	-6,756.3	-536.7	341.5	202.1	139.43	2.449		



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - SHAFER 4-35A (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	2.0	2.0	0.0	0.0	-172.77	-5,424.8	-687.9	5,468.3					
100.0	100.0	102.0	102.0	0.2	0.2	-172.77	-5,424.8	-687.9	5,468.3	5,467.9	0.33	N/A		
200.0	200.0	202.0	202.0	0.3	0.4	-172.77	-5,424.8	-687.9	5,468.3	5,467.6	0.68	8,054.219		
300.0	300.0	302.0	302.0	0.5	0.5	-172.77	-5,424.8	-687.9	5,468.3	5,467.2	1.03	5,319.341		
400.0	400.0	402.0	402.0	0.7	0.7	-172.77	-5,424.8	-687.9	5,468.3	5,466.9	1.38	3,970.965		
500.0	500.0	502.0	502.0	0.8	0.9	-172.77	-5,424.8	-687.9	5,468.3	5,466.6	1.73	3,167.939		
600.0	600.0	602.0	602.0	1.0	1.1	-172.77	-5,424.8	-687.9	5,468.3	5,466.2	2.08	2,635.065		
700.0	700.0	702.0	702.0	1.2	1.2	-172.77	-5,424.8	-687.9	5,468.3	5,465.9	2.42	2,255.646		
800.0	800.0	802.0	802.0	1.4	1.4	-172.77	-5,424.8	-687.9	5,468.3	5,465.5	2.77	1,971.738		
900.0	900.0	902.0	902.0	1.5	1.6	-172.77	-5,424.8	-687.9	5,468.3	5,465.2	3.12	1,751.309		
1,000.0	1,000.0	1,002.0	1,002.0	1.7	1.7	-172.77	-5,424.8	-687.9	5,468.3	5,464.8	3.47	1,575.210		
1,100.0	1,100.0	1,102.0	1,102.0	1.9	1.9	-172.77	-5,424.8	-687.9	5,468.3	5,464.5	3.82	1,431.289		
1,200.0	1,200.0	1,202.0	1,202.0	2.1	2.1	-120.54	-5,424.8	-687.9	5,468.7	5,464.6	4.17	1,311.557		
1,300.0	1,300.0	1,302.0	1,302.0	2.2	2.3	-120.55	-5,424.8	-687.9	5,470.1	5,465.5	4.52	1,210.318		
1,400.0	1,399.9	1,401.9	1,401.9	2.4	2.4	-120.57	-5,424.8	-687.9	5,472.3	5,467.4	4.87	1,123.314		
1,500.0	1,499.7	1,501.7	1,501.7	2.6	2.6	-120.60	-5,424.8	-687.9	5,475.4	5,470.2	5.23	1,047.420		
1,600.0	1,599.4	1,601.4	1,601.4	2.8	2.8	-120.64	-5,424.8	-687.9	5,479.4	5,473.8	5.59	980.322		
1,619.7	1,619.0	1,621.0	1,621.0	2.8	2.8	-120.65	-5,424.8	-687.9	5,480.3	5,474.6	5.66	968.023		
1,700.0	1,699.0	1,701.0	1,701.0	3.0	3.0	-120.71	-5,424.8	-687.9	5,484.0	5,478.0	5.96	920.625		
1,800.0	1,798.5	1,800.5	1,800.5	3.2	3.1	-120.79	-5,424.8	-687.9	5,488.7	5,482.3	6.33	867.352		
1,900.0	1,898.1	1,900.1	1,900.1	3.4	3.3	-120.87	-5,424.8	-687.9	5,493.3	5,486.6	6.70	819.636		
2,000.0	1,997.7	1,999.7	1,999.7	3.6	3.5	-120.95	-5,424.8	-687.9	5,498.0	5,490.9	7.08	776.707		
2,100.0	2,097.3	2,099.3	2,099.3	3.9	3.7	-121.03	-5,424.8	-687.9	5,502.7	5,495.2	7.46	737.922		
2,200.0	2,196.9	2,198.9	2,198.9	4.1	3.8	-121.11	-5,424.8	-687.9	5,507.3	5,499.5	7.84	702.738		
2,300.0	2,296.5	2,298.5	2,298.5	4.3	4.0	-121.19	-5,424.8	-687.9	5,512.0	5,503.8	8.22	670.698		
2,400.0	2,396.1	2,398.1	2,398.1	4.5	4.2	-121.28	-5,424.8	-687.9	5,516.8	5,508.2	8.60	641.415		
2,500.0	2,495.7	2,497.7	2,497.7	4.7	4.4	-121.36	-5,424.8	-687.9	5,521.5	5,512.5	8.98	614.561		
2,600.0	2,595.3	2,597.3	2,597.3	5.0	4.5	-121.44	-5,424.8	-687.9	5,526.2	5,516.8	9.37	589.854		
2,700.0	2,694.8	2,696.8	2,696.8	5.2	4.7	-121.52	-5,424.8	-687.9	5,531.0	5,521.2	9.75	567.054		
2,800.0	2,794.4	2,796.4	2,796.4	5.4	4.9	-121.59	-5,424.8	-687.9	5,535.7	5,525.6	10.14	545.955		
2,900.0	2,894.0	2,896.0	2,896.0	5.6	5.1	-121.67	-5,424.8	-687.9	5,540.5	5,529.9	10.53	526.377		
3,000.0	2,993.6	2,995.6	2,995.6	5.9	5.2	-121.75	-5,424.8	-687.9	5,545.3	5,534.3	10.91	508.165		
3,100.0	3,093.2	3,095.2	3,095.2	6.1	5.4	-121.83	-5,424.8	-687.9	5,550.0	5,538.7	11.30	491.184		
3,200.0	3,192.8	3,194.8	3,194.8	6.3	5.6	-121.91	-5,424.8	-687.9	5,554.8	5,543.1	11.69	475.315		
3,300.0	3,292.4	3,294.4	3,294.4	6.5	5.7	-121.99	-5,424.8	-687.9	5,559.6	5,547.6	12.07	460.455		
3,400.0	3,392.0	3,394.0	3,394.0	6.8	5.9	-122.07	-5,424.8	-687.9	5,564.5	5,552.0	12.46	446.512		
3,500.0	3,491.6	3,493.6	3,493.6	7.0	6.1	-122.15	-5,424.8	-687.9	5,569.3	5,556.4	12.85	433.404		
3,600.0	3,591.1	3,593.1	3,593.1	7.2	6.3	-122.23	-5,424.8	-687.9	5,574.1	5,560.9	13.24	421.060		
3,700.0	3,690.7	3,692.7	3,692.7	7.5	6.4	-122.31	-5,424.8	-687.9	5,579.0	5,565.4	13.63	409.416		
3,800.0	3,790.3	3,792.3	3,792.3	7.7	6.6	-122.38	-5,424.8	-687.9	5,583.8	5,569.8	14.02	398.415		
3,900.0	3,889.9	3,891.9	3,891.9	7.9	6.8	-122.46	-5,424.8	-687.9	5,588.7	5,574.3	14.40	388.006		
4,000.0	3,989.5	3,991.5	3,991.5	8.2	7.0	-122.54	-5,424.8	-687.9	5,593.6	5,578.8	14.79	378.142		
4,100.0	4,089.1	4,091.1	4,091.1	8.4	7.1	-122.62	-5,424.8	-687.9	5,598.5	5,583.3	15.18	368.783		
4,200.0	4,188.7	4,190.7	4,190.7	8.6	7.3	-122.70	-5,424.8	-687.9	5,603.4	5,587.8	15.57	359.890		
4,300.0	4,288.3	4,290.3	4,290.3	8.9	7.5	-122.77	-5,424.8	-687.9	5,608.3	5,592.3	15.96	351.431		
4,400.0	4,387.9	4,389.9	4,389.9	9.1	7.7	-122.85	-5,424.8	-687.9	5,613.2	5,596.9	16.35	343.375		
4,500.0	4,487.4	4,489.4	4,489.4	9.3	7.8	-122.93	-5,424.8	-687.9	5,618.2	5,601.4	16.74	335.693		
4,600.0	4,587.0	4,589.0	4,589.0	9.6	8.0	-123.01	-5,424.8	-687.9	5,623.1	5,606.0	17.12	328.361		
4,700.0	4,686.6	4,688.6	4,688.6	9.8	8.2	-123.08	-5,424.8	-687.9	5,628.1	5,610.5	17.51	321.355		
4,800.0	4,786.2	4,788.2	4,788.2	10.0	8.4	-123.16	-5,424.8	-687.9	5,633.0	5,615.1	17.90	314.655		
4,900.0	4,885.8	4,887.8	4,887.8	10.3	8.5	-123.24	-5,424.8	-687.9	5,638.0	5,619.7	18.29	308.240		
5,000.0	4,985.4	4,987.4	4,987.4	10.5	8.7	-123.31	-5,424.8	-687.9	5,643.0	5,624.3	18.68	302.094		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - SHAFER 4-35A (EXISTING) - Existing - Existing												Offset Site Error:	0.0 ft
Survey Program: O-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis		
5,100.0	5,085.0	5,087.0	5,087.0	10.7	8.9	-123.39	-5,424.8	-687.9	5,648.0	5,628.9	19.07	296.199	
5,200.0	5,184.6	5,186.6	5,186.6	11.0	9.1	-123.47	-5,424.8	-687.9	5,653.0	5,633.5	19.46	290.541	
5,300.0	5,284.2	5,286.2	5,286.2	11.2	9.2	-123.54	-5,424.8	-687.9	5,658.0	5,638.1	19.85	285.106	
5,400.0	5,383.7	5,385.7	5,385.7	11.4	9.4	-123.62	-5,424.8	-687.9	5,663.0	5,642.8	20.23	279.881	
5,500.0	5,483.3	5,485.3	5,485.3	11.7	9.6	-123.70	-5,424.8	-687.9	5,668.0	5,647.4	20.62	274.855	
5,600.0	5,582.9	5,584.9	5,584.9	11.9	9.7	-123.77	-5,424.8	-687.9	5,673.1	5,652.1	21.01	270.015	
5,700.0	5,682.5	5,684.5	5,684.5	12.1	9.9	-123.85	-5,424.8	-687.9	5,678.1	5,656.7	21.40	265.353	
5,800.0	5,782.1	5,784.1	5,784.1	12.4	10.1	-123.92	-5,424.8	-687.9	5,683.2	5,661.4	21.79	260.858	
5,900.0	5,881.7	5,883.7	5,883.7	12.6	10.3	-124.00	-5,424.8	-687.9	5,688.3	5,666.1	22.17	256.522	
6,000.0	5,981.3	5,983.3	5,983.3	12.8	10.4	-124.07	-5,424.8	-687.9	5,693.4	5,670.8	22.56	252.336	
6,100.0	6,080.9	6,082.9	6,082.9	13.1	10.6	-124.15	-5,424.8	-687.9	5,698.5	5,675.5	22.95	248.293	
6,200.0	6,180.5	6,182.5	6,182.5	13.3	10.8	-124.22	-5,424.8	-687.9	5,703.6	5,680.2	23.34	244.386	
6,300.0	6,280.0	6,282.0	6,282.0	13.5	11.0	-124.30	-5,424.8	-687.9	5,708.7	5,685.0	23.73	240.608	
6,400.0	6,379.6	6,381.6	6,381.6	13.8	11.1	-124.37	-5,424.8	-687.9	5,713.8	5,689.7	24.11	236.953	
6,500.0	6,479.2	6,481.2	6,481.2	14.0	11.3	-124.45	-5,424.8	-687.9	5,718.9	5,694.4	24.50	233.415	
6,600.0	6,578.8	6,580.8	6,580.8	14.2	11.5	-124.52	-5,424.8	-687.9	5,724.1	5,699.2	24.89	229.988	
6,700.0	6,678.4	6,680.4	6,680.4	14.5	11.7	-124.60	-5,424.8	-687.9	5,729.2	5,704.0	25.28	226.668	
6,800.0	6,778.0	6,780.0	6,780.0	14.7	11.8	-124.67	-5,424.8	-687.9	5,734.4	5,708.7	25.66	223.449	
6,900.0	6,877.6	6,879.6	6,879.6	14.9	12.0	-124.75	-5,424.8	-687.9	5,739.6	5,713.5	26.05	220.327	
6,953.0	6,930.4	6,932.4	6,932.4	15.1	12.1	-124.78	-5,424.8	-687.9	5,742.3	5,716.1	26.26	218.710	
7,000.0	6,977.2	6,979.2	6,979.2	15.1	12.2	-66.27	-5,424.8	-687.9	5,742.8	5,716.4	26.41	217.432	
7,050.0	7,027.0	7,029.0	7,029.0	15.2	12.3	-27.48	-5,424.8	-687.9	5,739.2	5,712.7	26.44	217.063	
7,100.0	7,076.2	7,078.2	7,078.2	15.2	12.4	-14.77	-5,424.8	-687.9	5,731.2	5,704.9	26.32	217.710	
7,150.0	7,124.6	7,126.6	7,126.6	15.3	12.4	-9.10	-5,424.8	-687.9	5,719.0	5,692.9	26.07	219.382	
7,200.0	7,171.8	7,173.8	7,173.8	15.2	12.5	-5.90	-5,424.8	-687.9	5,702.6	5,676.9	25.68	222.104	
7,250.0	7,217.4	7,219.4	7,219.4	15.2	12.6	-3.80	-5,424.8	-687.9	5,682.2	5,657.0	25.15	225.912	
7,300.0	7,261.1	7,263.1	7,263.1	15.2	12.7	-2.26	-5,424.8	-687.9	5,657.8	5,633.3	24.51	230.852	
7,350.0	7,302.5	7,304.5	7,304.5	15.2	12.7	-1.02	-5,424.8	-687.9	5,629.8	5,606.1	23.76	236.970	
7,400.0	7,341.3	7,343.3	7,343.3	15.1	12.8	0.08	-5,424.8	-687.9	5,598.3	5,575.4	22.92	244.300	
7,450.0	7,377.2	7,379.2	7,379.2	15.1	12.9	1.15	-5,424.8	-687.9	5,563.6	5,541.6	22.00	252.839	
7,500.0	7,410.0	7,412.0	7,412.0	15.1	12.9	2.27	-5,424.8	-687.9	5,525.9	5,504.8	21.05	262.504	
7,550.0	7,439.4	7,441.4	7,441.4	15.2	13.0	3.54	-5,424.8	-687.9	5,485.5	5,465.4	20.09	273.053	
7,600.0	7,465.2	7,467.2	7,467.2	15.2	13.0	5.12	-5,424.8	-687.9	5,442.7	5,423.5	19.17	283.943	
7,650.0	7,487.1	7,489.1	7,489.1	15.3	13.1	7.25	-5,424.8	-687.9	5,397.8	5,379.5	18.36	294.043	
7,700.0	7,505.1	7,507.1	7,507.1	15.5	13.1	10.38	-5,424.8	-687.9	5,351.2	5,333.5	17.78	300.991	
7,750.0	7,518.9	7,520.9	7,520.9	15.7	13.1	15.58	-5,424.8	-687.9	5,303.3	5,285.6	17.71	299.535	
7,800.0	7,528.5	7,530.5	7,530.5	15.9	13.1	25.88	-5,424.8	-687.9	5,254.4	5,235.4	18.95	277.302	
7,850.0	7,533.9	7,535.9	7,535.9	16.2	13.2	51.61	-5,424.8	-687.9	5,204.8	5,180.9	23.89	217.825	
7,886.2	7,535.0	7,537.0	7,537.0	16.4	13.2	90.00	-5,424.8	-687.9	5,168.8	5,141.1	27.68	186.708	
7,900.0	7,535.0	7,537.0	7,537.0	16.5	13.2	90.00	-5,424.8	-687.9	5,155.0	5,127.2	27.79	185.520	
8,000.0	7,535.0	7,537.0	7,537.0	17.2	13.2	90.00	-5,424.8	-687.9	5,055.4	5,026.7	28.63	176.600	
8,100.0	7,535.0	7,537.0	7,537.0	18.1	13.2	90.00	-5,424.8	-687.9	4,955.8	4,926.1	29.61	167.365	
8,200.0	7,535.0	7,537.0	7,537.0	19.1	13.2	90.00	-5,424.8	-687.9	4,856.1	4,825.4	30.72	158.101	
8,300.0	7,535.0	7,537.0	7,537.0	20.2	13.2	90.00	-5,424.8	-687.9	4,756.6	4,724.6	31.92	149.016	
8,400.0	7,535.0	7,537.0	7,537.0	21.4	13.2	90.00	-5,424.8	-687.9	4,657.0	4,623.8	33.21	140.248	
8,500.0	7,535.0	7,537.0	7,537.0	22.7	13.2	90.00	-5,424.8	-687.9	4,557.4	4,522.9	34.56	131.878	
8,600.0	7,535.0	7,537.0	7,537.0	24.0	13.2	90.00	-5,424.8	-687.9	4,457.9	4,421.9	35.97	123.950	
8,700.0	7,535.0	7,537.0	7,537.0	25.4	13.2	90.00	-5,424.8	-687.9	4,358.4	4,321.0	37.42	116.478	
8,800.0	7,535.0	7,537.0	7,537.0	26.9	13.2	90.00	-5,424.8	-687.9	4,258.9	4,220.0	38.91	109.459	
8,900.0	7,535.0	7,537.0	7,537.0	28.3	13.2	90.00	-5,424.8	-687.9	4,159.4	4,119.0	40.43	102.879	
9,000.0	7,535.0	7,537.0	7,537.0	29.8	13.2	90.00	-5,424.8	-687.9	4,060.0	4,018.0	41.98	96.715	
9,100.0	7,535.0	7,537.0	7,537.0	31.3	13.2	90.00	-5,424.8	-687.9	3,960.6	3,917.0	43.55	90.944	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - SHAFER 4-35A (EXISTING) - Existing - Existing												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis		
9,200.0	7,535.0	7,537.0	7,537.0	32.9	13.2	90.00	-5,424.8	-687.9	3,861.2	3,816.1	45.14	85.539	
9,300.0	7,535.0	7,537.0	7,537.0	34.4	13.2	90.00	-5,424.8	-687.9	3,761.9	3,715.1	46.75	80.474	
9,400.0	7,535.0	7,537.0	7,537.0	36.0	13.2	90.00	-5,424.8	-687.9	3,662.5	3,614.2	48.37	75.724	
9,500.0	7,535.0	7,537.0	7,537.0	37.6	13.2	90.00	-5,424.8	-687.9	3,563.3	3,513.3	50.00	71.266	
9,600.0	7,535.0	7,537.0	7,537.0	39.2	13.2	90.00	-5,424.8	-687.9	3,464.0	3,412.4	51.64	67.076	
9,700.0	7,535.0	7,537.0	7,537.0	40.9	13.2	90.00	-5,424.8	-687.9	3,364.9	3,311.6	53.30	63.135	
9,800.0	7,535.0	7,537.0	7,537.0	42.5	13.2	90.00	-5,424.8	-687.9	3,265.7	3,210.8	54.96	59.422	
9,900.0	7,535.0	7,537.0	7,537.0	44.1	13.2	90.00	-5,424.8	-687.9	3,166.6	3,110.0	56.63	55.921	
10,000.0	7,535.0	7,537.0	7,537.0	45.8	13.2	90.00	-5,424.8	-687.9	3,067.6	3,009.3	58.30	52.616	
10,100.0	7,535.0	7,537.0	7,537.0	47.4	13.2	90.00	-5,424.8	-687.9	2,968.7	2,908.7	59.98	49.492	
10,200.0	7,535.0	7,537.0	7,537.0	49.1	13.2	90.00	-5,424.8	-687.9	2,869.8	2,808.1	61.67	46.535	
10,300.0	7,535.0	7,537.0	7,537.0	50.8	13.2	90.00	-5,424.8	-687.9	2,771.0	2,707.6	63.36	43.733	
10,400.0	7,535.0	7,537.0	7,537.0	52.5	13.2	90.00	-5,424.8	-687.9	2,672.3	2,607.2	65.06	41.076	
10,500.0	7,535.0	7,537.0	7,537.0	54.1	13.2	90.00	-5,424.8	-687.9	2,573.7	2,506.9	66.76	38.554	
10,600.0	7,535.0	7,537.0	7,537.0	55.8	13.2	90.00	-5,424.8	-687.9	2,475.1	2,406.7	68.46	36.156	
10,700.0	7,535.0	7,537.0	7,537.0	57.5	13.2	90.00	-5,424.8	-687.9	2,376.8	2,306.6	70.16	33.875	
10,800.0	7,535.0	7,537.0	7,537.0	59.2	13.2	90.00	-5,424.8	-687.9	2,278.5	2,206.7	71.87	31.702	
10,900.0	7,535.0	7,537.0	7,537.0	60.9	13.2	90.00	-5,424.8	-687.9	2,180.5	2,106.9	73.58	29.632	
11,000.0	7,535.0	7,537.0	7,537.0	62.6	13.2	90.00	-5,424.8	-687.9	2,082.6	2,007.3	75.30	27.658	
11,100.0	7,535.0	7,537.0	7,537.0	64.3	13.2	90.00	-5,424.8	-687.9	1,984.9	1,907.9	77.01	25.773	
11,200.0	7,535.0	7,537.0	7,537.0	66.0	13.2	90.00	-5,424.8	-687.9	1,887.4	1,808.7	78.73	23.973	
11,300.0	7,535.0	7,537.0	7,537.0	67.7	13.2	90.00	-5,424.8	-687.9	1,790.3	1,709.8	80.45	22.253	
11,400.0	7,535.0	7,537.0	7,537.0	69.4	13.2	90.00	-5,424.8	-687.9	1,693.4	1,611.3	82.17	20.608	
11,496.2	7,535.0	7,537.0	7,537.0	71.1	13.2	90.00	-5,424.8	-687.9	1,600.7	1,516.9	83.83	19.094	
11,500.0	7,535.0	7,537.0	7,537.0	71.2	13.2	90.00	-5,424.8	-687.9	1,597.0	1,513.1	83.90	19.035	
11,600.0	7,535.0	7,537.0	7,537.0	72.9	13.2	90.00	-5,424.8	-687.9	1,501.0	1,415.4	85.62	17.531	
11,700.0	7,535.0	7,537.0	7,537.0	74.6	13.2	90.00	-5,424.8	-687.9	1,405.6	1,318.3	87.35	16.092	
11,800.0	7,535.0	7,537.0	7,537.0	76.3	13.2	90.00	-5,424.8	-687.9	1,310.9	1,221.8	89.08	14.717	
11,900.0	7,535.0	7,537.0	7,537.0	78.0	13.2	90.00	-5,424.8	-687.9	1,217.0	1,126.2	90.80	13.403	
12,000.0	7,535.0	7,537.0	7,537.0	79.7	13.2	90.00	-5,424.8	-687.9	1,124.2	1,031.7	92.53	12.149	
12,100.0	7,535.0	7,537.0	7,537.0	81.5	13.2	90.00	-5,424.8	-687.9	1,032.7	938.4	94.27	10.955	
12,200.0	7,535.0	7,537.0	7,537.0	83.2	13.2	90.00	-5,424.8	-687.9	943.0	847.0	96.00	9.823	
12,296.2	7,535.0	7,537.0	7,537.0	84.9	13.2	90.00	-5,424.8	-687.9	858.8	761.1	97.66	8.793	
12,300.0	7,535.0	7,537.0	7,537.0	84.9	13.2	90.00	-5,424.8	-687.9	855.5	757.7	97.74	8.752	
12,400.0	7,535.0	7,537.0	7,537.0	86.6	13.2	90.00	-5,424.8	-687.9	770.0	670.3	99.68	7.725	
12,492.9	7,535.0	7,537.0	7,537.0	88.3	13.2	90.00	-5,424.8	-687.9	692.2	590.8	101.39	6.827	
12,500.0	7,535.0	7,537.0	7,537.0	88.4	13.2	90.00	-5,424.8	-687.9	686.4	584.9	101.52	6.761	
12,600.0	7,535.0	7,537.0	7,537.0	90.1	13.2	90.00	-5,424.8	-687.9	606.8	503.5	103.25	5.876	
12,700.0	7,535.0	7,537.0	7,537.0	91.9	13.2	90.00	-5,424.8	-687.9	534.0	429.0	104.99	5.086	
12,800.0	7,535.0	7,537.0	7,537.0	93.6	13.2	90.00	-5,424.8	-687.9	471.4	364.6	106.73	4.417	
12,900.0	7,535.0	7,537.0	7,537.0	95.3	13.2	90.00	-5,424.8	-687.9	423.3	314.9	108.46	3.903	
13,000.0	7,535.0	7,537.0	7,537.0	97.1	13.2	90.00	-5,424.8	-687.9	395.3	285.1	110.20	3.587	
13,064.9	7,535.0	7,537.0	7,537.0	98.2	13.2	90.00	-5,424.8	-687.9	389.9	278.6	111.33	3.502 CC, ES	
13,100.0	7,535.0	7,537.0	7,537.0	98.8	13.2	90.00	-5,424.8	-687.9	391.5	279.5	111.94	3.497 SF	
13,200.0	7,535.0	7,537.0	7,537.0	100.5	13.2	90.00	-5,424.8	-687.9	412.7	299.0	113.68	3.630	
13,300.0	7,535.0	7,537.0	7,537.0	102.3	13.2	90.00	-5,424.8	-687.9	455.3	339.9	115.42	3.945	
13,400.0	7,535.0	7,537.0	7,537.0	104.0	13.2	90.00	-5,424.8	-687.9	514.1	397.0	117.16	4.388	
13,500.0	7,535.0	7,537.0	7,537.0	105.8	13.2	90.00	-5,424.8	-687.9	584.3	465.4	118.90	4.914	
13,600.0	7,535.0	7,537.0	7,537.0	107.5	13.2	90.00	-5,424.8	-687.9	662.1	541.5	120.65	5.488	
13,700.0	7,535.0	7,537.0	7,537.0	109.3	13.2	90.00	-5,424.8	-687.9	745.3	622.9	122.39	6.089	
13,800.0	7,535.0	7,537.0	7,537.0	111.0	13.2	90.00	-5,424.8	-687.9	832.1	708.0	124.13	6.704	
13,900.0	7,535.0	7,537.0	7,537.0	112.7	13.2	90.00	-5,424.8	-687.9	921.7	795.8	125.87	7.322	

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R66W (Rodman Bruntz) - SHAFER 4-35A (EXISTING) - Existing - Existing												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-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
14,000.0	7,535.0	7,537.0	7,537.0	114.5	13.2	90.00	-5,424.8	-687.9	1,013.1	885.5	127.62	7.939	
14,100.0	7,535.0	7,537.0	7,537.0	116.2	13.2	90.00	-5,424.8	-687.9	1,106.1	976.8	129.36	8.551	
14,200.0	7,535.0	7,537.0	7,537.0	118.0	13.2	90.00	-5,424.8	-687.9	1,200.2	1,069.1	131.10	9.155	
14,300.0	7,535.0	7,537.0	7,537.0	119.7	13.2	90.00	-5,424.8	-687.9	1,295.2	1,162.4	132.85	9.749	
14,400.0	7,535.0	7,537.0	7,537.0	121.5	13.2	90.00	-5,424.8	-687.9	1,390.9	1,256.3	134.59	10.334	
14,500.0	7,535.0	7,537.0	7,537.0	123.2	13.2	90.00	-5,424.8	-687.9	1,487.1	1,350.8	136.34	10.908	
14,600.0	7,535.0	7,537.0	7,537.0	124.9	13.2	90.00	-5,424.8	-687.9	1,583.9	1,445.8	138.08	11.470	
14,672.4	7,535.0	7,537.0	7,537.0	126.2	13.2	90.00	-5,424.8	-687.9	1,654.1	1,514.7	139.35	11.870	
14,672.9	7,535.0	7,537.0	7,537.0	126.2	13.2	90.00	-5,424.8	-687.9	1,654.6	1,515.2	139.36	11.873	



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1A-34H - Hz - Hz													Offset Site Error:	0.0 ft
Survey Program: 785-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	6.0	6.0	0.0	0.0	-166.32	-5,683.8	-1,383.9	5,849.9					
100.0	100.0	106.0	106.0	0.2	0.2	-166.32	-5,683.8	-1,383.9	5,849.9	5,849.5	0.33	N/A		
200.0	200.0	206.0	206.0	0.3	0.4	-166.32	-5,683.8	-1,383.9	5,849.9	5,849.2	0.68	8,597.440		
300.0	300.0	306.0	306.0	0.5	0.5	-166.32	-5,683.8	-1,383.9	5,849.9	5,848.8	1.03	5,697.082		
400.0	400.0	406.0	406.0	0.7	0.7	-166.32	-5,683.8	-1,383.9	5,849.9	5,848.5	1.37	4,259.974		
500.0	500.0	506.0	506.0	0.8	0.9	-166.32	-5,683.8	-1,383.9	5,849.9	5,848.1	1.72	3,401.847		
600.0	600.0	606.0	606.0	1.0	1.0	-166.32	-5,683.8	-1,383.9	5,849.9	5,847.8	2.07	2,831.476		
700.0	700.0	706.0	706.0	1.2	1.2	-166.32	-5,683.8	-1,383.9	5,849.9	5,847.4	2.41	2,424.904		
800.0	800.0	834.9	834.9	1.4	1.4	-166.32	-5,683.7	-1,383.9	5,849.8	5,847.0	2.81	2,081.856		
900.0	900.0	989.0	989.0	1.5	1.7	-166.31	-5,681.8	-1,384.3	5,848.6	5,845.3	3.25	1,797.242		
1,000.0	1,000.0	1,068.4	1,068.4	1.7	1.8	-166.30	-5,680.7	-1,384.6	5,847.3	5,843.8	3.57	1,638.916		
1,100.0	1,100.0	1,160.7	1,160.7	1.9	2.0	-166.30	-5,679.6	-1,385.0	5,846.3	5,842.4	3.90	1,497.478		
1,200.0	1,200.0	1,248.8	1,248.8	2.1	2.2	-114.06	-5,678.8	-1,385.5	5,845.9	5,841.6	4.23	1,381.562		
1,202.2	1,202.2	1,250.8	1,250.7	2.1	2.2	-114.06	-5,678.7	-1,385.5	5,845.9	5,841.6	4.24	1,379.187		
1,300.0	1,300.0	1,334.1	1,334.1	2.2	2.3	-114.07	-5,678.1	-1,386.1	5,846.3	5,841.8	4.56	1,283.152		
1,400.0	1,399.9	1,435.6	1,435.6	2.4	2.5	-114.09	-5,677.4	-1,387.1	5,847.6	5,842.7	4.91	1,190.391		
1,500.0	1,499.7	1,524.1	1,524.1	2.6	2.6	-114.11	-5,676.7	-1,388.1	5,849.7	5,844.5	5.25	1,114.070		
1,600.0	1,599.4	1,613.2	1,613.2	2.8	2.8	-114.13	-5,676.3	-1,389.2	5,852.7	5,847.1	5.60	1,045.629		
1,619.7	1,619.0	1,631.0	1,630.9	2.8	2.8	-114.14	-5,676.2	-1,389.5	5,853.4	5,847.7	5.67	1,032.950		
1,700.0	1,699.0	1,701.8	1,701.7	3.0	3.0	-114.18	-5,675.9	-1,390.5	5,856.4	5,850.4	5.95	984.397		
1,800.0	1,798.5	1,782.6	1,782.5	3.2	3.1	-114.23	-5,675.7	-1,391.9	5,860.3	5,854.0	6.29	931.428		
1,900.0	1,898.1	1,869.5	1,869.4	3.4	3.3	-114.29	-5,675.8	-1,393.5	5,864.6	5,857.9	6.65	882.114		
2,000.0	1,997.7	1,991.1	1,991.0	3.6	3.5	-114.37	-5,675.9	-1,395.6	5,868.8	5,861.7	7.07	830.273		
2,100.0	2,097.3	2,077.6	2,077.4	3.9	3.6	-114.43	-5,675.8	-1,396.9	5,872.8	5,865.3	7.43	790.530		
2,200.0	2,196.9	2,151.0	2,150.8	4.1	3.7	-114.48	-5,676.1	-1,397.9	5,877.2	5,869.4	7.77	756.580		
2,300.0	2,296.5	2,241.3	2,241.2	4.3	3.9	-114.54	-5,676.8	-1,399.3	5,882.1	5,873.9	8.14	722.719		
2,400.0	2,396.1	2,351.4	2,351.2	4.5	4.1	-114.61	-5,677.3	-1,401.0	5,886.6	5,878.1	8.55	688.838		
2,500.0	2,495.7	2,471.4	2,471.2	4.7	4.3	-114.68	-5,677.8	-1,403.4	5,891.3	5,882.4	8.97	656.625		
2,600.0	2,595.3	2,645.8	2,645.5	5.0	4.6	-114.79	-5,677.0	-1,407.1	5,895.3	5,885.8	9.50	620.790		
2,700.0	2,694.8	2,772.4	2,772.1	5.2	4.8	-114.87	-5,675.1	-1,408.8	5,897.9	5,887.9	9.93	593.689		
2,800.0	2,794.4	2,935.3	2,935.0	5.4	5.1	-115.00	-5,672.2	-1,407.7	5,899.7	5,889.3	10.43	565.526		
2,900.0	2,894.0	3,039.5	3,039.1	5.6	5.3	-115.10	-5,670.1	-1,406.1	5,901.2	5,890.4	10.83	544.929		
3,000.0	2,993.6	3,157.1	3,156.8	5.9	5.5	-115.20	-5,667.4	-1,404.7	5,902.6	5,891.4	11.25	524.649		
3,100.0	3,093.2	3,259.4	3,259.0	6.1	5.7	-115.29	-5,664.9	-1,403.4	5,903.8	5,892.1	11.65	506.938		
3,200.0	3,192.8	3,364.6	3,364.2	6.3	5.9	-115.37	-5,662.2	-1,402.2	5,904.9	5,892.9	12.05	490.151		
3,300.0	3,292.4	3,481.1	3,480.6	6.5	6.1	-115.48	-5,659.0	-1,400.6	5,905.8	5,893.4	12.47	473.711		
3,400.0	3,392.0	3,542.0	3,541.5	6.8	6.2	-115.53	-5,657.4	-1,399.2	5,906.8	5,894.0	12.79	461.774		
3,500.0	3,491.6	3,603.8	3,603.3	7.0	6.3	-115.60	-5,656.2	-1,397.4	5,908.4	5,895.2	13.12	450.422		
3,600.0	3,591.1	3,661.4	3,660.8	7.2	6.4	-115.66	-5,655.8	-1,395.7	5,910.9	5,897.5	13.44	439.921		
3,700.0	3,690.7	3,761.2	3,760.5	7.5	6.6	-115.76	-5,655.2	-1,393.3	5,913.8	5,899.9	13.83	427.643		
3,800.0	3,790.3	3,845.4	3,844.7	7.7	6.7	-115.84	-5,654.6	-1,392.1	5,916.8	5,902.6	14.20	416.815		
3,900.0	3,889.9	3,923.0	3,922.3	7.9	6.8	-115.90	-5,654.3	-1,391.5	5,920.1	5,905.6	14.55	406.862		
4,000.0	3,989.5	4,062.5	4,061.9	8.2	7.1	-116.01	-5,653.2	-1,391.2	5,923.3	5,908.3	15.01	394.518		
4,100.0	4,089.1	4,157.0	4,156.4	8.4	7.3	-116.09	-5,652.1	-1,390.9	5,926.1	5,910.7	15.40	384.845		
4,200.0	4,188.7	4,267.6	4,266.9	8.6	7.5	-116.19	-5,651.4	-1,388.8	5,929.2	5,913.3	15.81	375.014		
4,300.0	4,288.3	4,399.0	4,398.3	8.9	7.7	-116.32	-5,649.9	-1,386.2	5,931.6	5,915.4	16.26	364.829		
4,400.0	4,387.9	4,482.9	4,482.1	9.1	7.8	-116.39	-5,648.8	-1,385.0	5,934.0	5,917.4	16.63	356.926		
4,500.0	4,487.4	4,589.0	4,588.2	9.3	8.0	-116.49	-5,647.3	-1,383.7	5,936.5	5,919.4	17.03	348.581		
4,600.0	4,587.0	4,654.9	4,654.1	9.6	8.1	-116.55	-5,646.6	-1,382.7	5,939.2	5,921.8	17.37	341.995		
4,700.0	4,686.6	4,721.1	4,720.4	9.8	8.2	-116.60	-5,646.2	-1,382.1	5,942.5	5,924.8	17.70	335.682		
4,800.0	4,786.2	4,803.0	4,802.3	10.0	8.4	-116.67	-5,646.1	-1,381.6	5,946.3	5,928.3	18.07	329.138		
4,900.0	4,885.8	4,930.1	4,929.3	10.3	8.6	-116.78	-5,645.7	-1,380.9	5,950.0	5,931.5	18.51	321.487		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1A-34H - Hz - Hz													Offset Site Error:	0.0 ft
Survey Program: 785-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)				
5,000.0	4,985.4	5,032.7	5,031.9	10.5	8.8	-116.86	-5,645.1	-1,380.3	5,953.4	5,934.5	18.91	314.874		
5,100.0	5,085.0	5,152.4	5,151.6	10.7	9.0	-116.96	-5,644.3	-1,379.4	5,956.8	5,937.4	19.34	308.065		
5,200.0	5,184.6	5,218.5	5,216.8	11.0	9.7	-117.40	-5,634.1	-1,360.7	5,956.0	5,935.8	20.19	294.997		
5,300.0	5,284.2	5,311.0	5,309.3	11.2	10.1	-117.83	-5,625.0	-1,330.4	5,952.9	5,932.1	20.80	286.205		
5,400.0	5,383.7	5,401.1	5,399.4	11.4	10.5	-118.26	-5,617.8	-1,298.2	5,949.8	5,928.5	21.37	278.483		
5,500.0	5,483.3	5,500.7	5,499.0	11.7	10.5	-118.35	-5,616.5	-1,290.5	5,946.2	5,924.5	21.66	274.518		
5,600.0	5,582.9	5,599.9	5,598.2	11.9	10.6	-118.44	-5,615.6	-1,283.2	5,943.7	5,921.8	21.95	270.745		
5,700.0	5,682.5	5,700.0	5,698.3	12.1	11.5	-119.40	-5,600.4	-1,206.9	5,939.7	5,916.7	23.00	258.243		
5,800.0	5,782.1	5,800.0	5,798.3	12.4	11.7	-119.57	-5,596.5	-1,193.4	5,934.3	5,910.9	23.38	253.815		
5,900.0	5,881.7	5,900.0	5,899.9	12.6	11.8	-119.68	-5,594.1	-1,184.2	5,929.8	5,906.1	23.71	250.062		
6,000.0	5,981.3	6,000.0	5,980.0	12.8	12.0	-119.81	-5,591.5	-1,174.5	5,926.4	5,902.3	24.06	246.281		
6,100.0	6,080.9	6,080.9	6,080.0	13.1	12.0	-119.85	-5,590.8	-1,172.1	5,924.0	5,899.7	24.32	243.619		
6,200.0	6,180.5	6,180.5	6,180.0	13.3	12.1	-119.88	-5,590.2	-1,169.8	5,923.0	5,898.4	24.58	241.010		
6,216.0	6,196.4	6,196.4	6,196.0	13.3	12.1	-119.88	-5,590.2	-1,169.8	5,923.0	5,898.4	24.61	240.664		
6,300.0	6,280.0	6,280.0	6,280.0	13.5	12.1	-119.91	-5,589.7	-1,168.1	5,923.4	5,898.6	24.83	238.568		
6,400.0	6,379.6	6,379.6	6,379.0	13.8	12.1	-119.93	-5,589.5	-1,166.8	5,925.3	5,900.2	25.08	236.252		
6,500.0	6,479.2	6,479.2	6,479.0	14.0	12.2	-119.97	-5,589.3	-1,165.5	5,928.6	5,903.2	25.36	233.809		
6,600.0	6,578.8	6,578.8	6,578.0	14.2	12.2	-119.99	-5,589.4	-1,165.6	5,933.0	5,907.4	25.62	231.540		
6,700.0	6,678.4	6,678.4	6,678.0	14.5	12.3	-120.00	-5,589.5	-1,167.1	5,938.5	5,912.6	25.89	229.395		
6,800.0	6,778.0	6,778.0	6,778.0	14.7	12.3	-120.00	-5,589.9	-1,169.8	5,945.2	5,919.1	26.15	227.390		
6,900.0	6,877.6	6,877.6	6,877.0	14.9	12.3	-120.00	-5,589.9	-1,169.8	5,953.2	5,926.8	26.37	225.787		
6,953.0	6,930.4	6,930.4	6,930.0	15.1	12.3	-119.99	-5,590.4	-1,171.9	5,958.0	5,931.5	26.50	224.814		
7,000.0	6,977.2	6,977.2	6,977.0	15.1	12.3	-61.48	-5,590.9	-1,173.8	5,960.7	5,934.1	26.58	224.275		
7,050.0	7,027.0	7,027.0	7,027.0	15.2	12.3	-22.67	-5,590.9	-1,173.8	5,959.7	5,933.2	26.50	224.872		
7,100.0	7,076.2	7,076.2	7,076.0	15.2	12.3	-9.92	-5,590.9	-1,173.8	5,954.8	5,928.5	26.28	226.561		
7,150.0	7,124.6	7,124.6	7,124.0	15.3	12.3	-4.16	-5,591.7	-1,176.4	5,945.9	5,920.0	25.94	229.245		
7,200.0	7,171.8	7,171.8	7,171.0	15.2	12.3	-0.84	-5,592.6	-1,179.1	5,933.3	5,907.8	25.46	233.074		
7,250.0	7,217.4	7,217.4	7,217.0	15.2	12.3	1.39	-5,592.6	-1,179.1	5,916.8	5,892.0	24.84	238.201		
7,300.0	7,261.1	7,261.1	7,261.0	15.2	12.3	3.09	-5,592.6	-1,179.1	5,896.7	5,872.6	24.11	244.580		
7,350.0	7,302.5	7,302.5	7,302.0	15.2	12.3	4.53	-5,592.6	-1,179.1	5,873.1	5,849.8	23.28	252.262		
7,400.0	7,341.3	7,341.3	7,341.0	15.1	12.3	5.86	-5,592.6	-1,179.1	5,846.1	5,823.7	22.38	261.272		
7,450.0	7,377.2	7,377.2	7,377.0	15.1	12.3	7.31	-5,595.2	-1,186.1	5,815.8	5,794.3	21.45	271.157		
7,500.0	7,410.0	7,410.0	7,410.0	15.1	12.3	8.75	-5,595.2	-1,186.1	5,782.4	5,761.9	20.47	282.465		
7,550.0	7,439.4	7,439.4	7,439.0	15.2	12.3	10.39	-5,595.2	-1,186.1	5,746.1	5,726.6	19.52	294.412		
7,600.0	7,465.2	7,465.2	7,465.0	15.2	12.3	12.34	-5,595.2	-1,186.1	5,707.3	5,688.6	18.65	306.094		
7,650.0	7,487.1	7,487.1	7,487.0	15.3	12.3	14.77	-5,595.2	-1,186.1	5,666.1	5,648.2	17.94	315.853		
7,700.0	7,505.1	7,505.1	7,505.0	15.5	12.3	17.96	-5,595.2	-1,186.1	5,622.9	5,605.4	17.52	320.964		
7,750.0	7,518.9	7,518.9	7,518.0	15.7	12.3	22.34	-5,595.2	-1,186.1	5,577.8	5,560.3	17.56	317.558		
7,800.0	7,528.5	7,528.5	7,528.0	15.9	12.3	28.70	-5,595.2	-1,186.1	5,531.3	5,513.0	18.35	301.481		
7,850.0	7,533.9	7,533.9	7,533.0	16.2	12.3	38.44	-5,595.2	-1,186.1	5,483.6	5,463.4	20.23	271.116		
7,886.2	7,535.0	7,535.0	7,535.0	16.4	12.3	48.88	-5,595.2	-1,186.1	5,448.6	5,426.2	22.40	243.199		
7,900.0	7,535.0	7,535.0	7,535.0	16.5	12.3	48.88	-5,595.2	-1,186.1	5,435.1	5,412.6	22.48	241.742		
8,000.0	7,535.0	7,535.0	7,535.0	17.2	12.3	48.88	-5,595.2	-1,186.1	5,337.8	5,314.7	23.12	230.882		
8,100.0	7,535.0	7,535.0	7,535.0	18.1	12.3	49.50	-5,596.8	-1,189.7	5,240.5	5,216.5	24.00	218.386		
8,200.0	7,535.0	7,535.0	7,535.0	19.1	12.3	49.56	-5,597.0	-1,190.1	5,143.4	5,118.6	24.84	207.081		
8,300.0	7,535.0	7,535.0	7,535.0	20.2	12.3	49.64	-5,597.2	-1,190.6	5,046.4	5,020.6	25.75	195.963		
8,400.0	7,535.0	7,535.0	7,535.0	21.4	12.3	50.21	-5,598.8	-1,194.2	4,949.6	4,922.7	26.86	184.246		
8,500.0	7,535.0	7,535.0	7,535.0	22.7	12.3	50.21	-5,598.8	-1,194.2	4,852.8	4,824.9	27.88	174.063		
8,600.0	7,535.0	7,535.0	7,535.0	24.0	12.3	50.21	-5,598.8	-1,194.2	4,756.2	4,727.2	28.94	164.359		
8,700.0	7,535.0	7,535.0	7,535.0	25.4	12.3	50.21	-5,598.8	-1,194.2	4,659.6	4,629.6	30.03	155.160		
8,800.0	7,535.0	7,535.0	7,535.0	26.9	12.3	50.21	-5,598.8	-1,194.2	4,563.3	4,532.1	31.16	146.470		
8,900.0	7,535.0	7,535.0	7,535.0	28.3	12.3	50.21	-5,598.8	-1,194.2	4,467.1	4,434.8	32.30	138.280		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1A-34H - Hz - Hz													Offset Site Error:	0.0 ft
Survey Program: 785-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	7,535.0	6,778.0	6,752.4	29.8	12.3	50.21	-5,598.8	-1,194.2	4,371.0	4,337.6	33.48	130.573		
9,100.0	7,535.0	6,778.0	6,752.4	31.3	12.3	50.21	-5,598.8	-1,194.2	4,275.2	4,240.5	34.67	123.326		
9,200.0	7,535.0	6,778.0	6,752.4	32.9	12.3	50.21	-5,598.8	-1,194.2	4,179.5	4,143.7	35.87	116.512		
9,300.0	7,535.0	6,778.0	6,752.4	34.4	12.3	50.21	-5,598.8	-1,194.2	4,084.1	4,047.0	37.09	110.106		
9,400.0	7,535.0	6,778.0	6,752.4	36.0	12.3	50.21	-5,598.8	-1,194.2	3,988.9	3,950.5	38.32	104.081		
9,500.0	7,535.0	6,791.8	6,765.5	37.6	12.3	50.80	-5,600.6	-1,198.2	3,893.8	3,853.9	39.84	97.735		
9,600.0	7,535.0	6,794.8	6,768.4	39.2	12.3	50.93	-5,601.0	-1,199.1	3,799.0	3,757.8	41.17	92.284		
9,700.0	7,535.0	6,809.0	6,781.7	40.9	12.3	51.55	-5,603.0	-1,203.4	3,704.5	3,661.8	42.74	86.669		
9,800.0	7,535.0	6,809.0	6,781.7	42.5	12.3	51.55	-5,603.0	-1,203.4	3,610.3	3,566.2	44.04	81.984		
9,900.0	7,535.0	6,809.0	6,781.7	44.1	12.3	51.55	-5,603.0	-1,203.4	3,516.3	3,471.0	45.34	77.562		
10,000.0	7,535.0	6,809.0	6,781.7	45.8	12.3	51.55	-5,603.0	-1,203.4	3,422.7	3,376.1	46.64	73.385		
10,100.0	7,535.0	6,809.0	6,781.7	47.4	12.3	51.55	-5,603.0	-1,203.4	3,329.5	3,281.6	47.95	69.435		
10,200.0	7,535.0	6,819.9	6,791.9	49.1	12.3	52.02	-5,604.5	-1,206.9	3,236.6	3,187.1	49.55	65.327		
10,300.0	7,535.0	6,826.4	6,798.0	50.8	12.3	52.31	-5,605.4	-1,209.0	3,144.2	3,093.2	51.05	61.596		
10,400.0	7,535.0	6,832.8	6,803.9	52.5	12.3	52.60	-5,606.2	-1,211.2	3,052.2	2,999.6	52.56	58.074		
10,500.0	7,535.0	6,841.0	6,811.5	54.1	12.3	52.97	-5,607.4	-1,214.1	2,960.7	2,906.6	54.13	54.693		
10,600.0	7,535.0	6,841.0	6,811.5	55.8	12.3	52.97	-5,607.4	-1,214.1	2,869.7	2,814.3	55.49	51.717		
10,700.0	7,535.0	6,841.0	6,811.5	57.5	12.3	52.97	-5,607.4	-1,214.1	2,779.4	2,722.6	56.85	48.891		
10,800.0	7,535.0	6,855.0	6,824.4	59.2	12.3	53.60	-5,609.3	-1,219.1	2,689.7	2,631.0	58.64	45.870		
10,900.0	7,535.0	6,860.1	6,829.2	60.9	12.3	53.84	-5,609.9	-1,221.0	2,600.7	2,540.5	60.17	43.220		
11,000.0	7,535.0	6,873.0	6,840.9	62.6	12.3	54.43	-5,611.7	-1,226.0	2,512.5	2,450.6	61.97	40.547		
11,100.0	7,535.0	6,873.0	6,840.9	64.3	12.3	54.43	-5,611.7	-1,226.0	2,425.2	2,361.9	63.36	38.277		
11,200.0	7,535.0	6,873.0	6,840.9	66.0	12.3	54.43	-5,611.7	-1,226.0	2,339.0	2,274.2	64.76	36.119		
11,300.0	7,535.0	6,873.0	6,840.9	67.7	12.3	54.43	-5,611.7	-1,226.0	2,253.8	2,187.6	66.16	34.068		
11,400.0	7,535.0	6,883.7	6,850.7	69.4	12.3	54.93	-5,613.1	-1,230.3	2,169.8	2,101.9	67.93	31.941		
11,496.2	7,535.0	6,887.9	6,854.4	71.1	12.3	55.12	-5,613.7	-1,232.0	2,090.4	2,021.0	69.44	30.105		
11,500.0	7,535.0	6,888.1	6,854.6	71.2	12.3	55.13	-5,613.7	-1,232.1	2,087.3	2,017.8	69.50	30.034		
11,600.0	7,535.0	6,892.4	6,858.4	72.9	12.3	55.33	-5,614.3	-1,233.9	2,006.3	1,935.2	71.07	28.230		
11,700.0	7,535.0	6,905.0	6,869.7	74.6	12.3	55.92	-5,616.0	-1,239.3	1,927.1	1,854.2	72.96	26.414		
11,800.0	7,535.0	6,905.0	6,869.7	76.3	12.3	55.92	-5,616.0	-1,239.3	1,849.8	1,775.5	74.39	24.867		
11,900.0	7,535.0	6,905.0	6,869.7	78.0	12.3	55.92	-5,616.0	-1,239.3	1,774.8	1,699.0	75.82	23.408		
12,000.0	7,535.0	6,905.0	6,869.7	79.7	12.3	55.92	-5,616.0	-1,239.3	1,702.4	1,625.1	77.26	22.036		
12,100.0	7,535.0	6,905.0	6,869.7	81.5	12.3	55.92	-5,616.0	-1,239.3	1,632.9	1,554.2	78.69	20.751		
12,200.0	7,535.0	6,905.0	6,869.7	83.2	12.3	55.92	-5,616.0	-1,239.3	1,566.7	1,486.5	80.13	19.553		
12,296.2	7,535.0	6,919.1	6,882.1	84.9	12.3	56.59	-5,617.9	-1,245.6	1,506.3	1,424.2	82.09	18.349		
12,300.0	7,535.0	6,919.2	6,882.2	84.9	12.3	56.56	-5,617.9	-1,245.7	1,503.9	1,421.8	82.13	18.311		
12,400.0	7,535.0	6,923.2	6,885.7	86.6	12.3	55.93	-5,618.5	-1,247.5	1,444.3	1,361.1	83.20	17.359		
12,492.9	7,535.0	6,936.0	6,896.8	88.3	12.3	55.81	-5,620.4	-1,253.6	1,390.8	1,306.3	84.53	16.453		
12,500.0	7,535.0	6,936.0	6,896.8	88.4	12.3	55.81	-5,620.4	-1,253.6	1,386.8	1,302.2	84.63	16.386		
12,600.0	7,535.0	6,936.0	6,896.8	90.1	12.3	55.81	-5,620.4	-1,253.6	1,333.1	1,247.0	86.07	15.488		
12,700.0	7,535.0	6,936.0	6,896.8	91.9	12.3	55.81	-5,620.4	-1,253.6	1,284.9	1,197.4	87.51	14.684		
12,800.0	7,535.0	6,936.0	6,896.8	93.6	12.3	55.81	-5,620.4	-1,253.6	1,243.0	1,154.0	88.95	13.974		
12,900.0	7,535.0	6,950.0	6,908.9	95.3	12.3	56.50	-5,622.5	-1,260.5	1,207.6	1,116.6	91.07	13.261		
13,000.0	7,535.0	6,956.4	6,914.3	97.1	12.3	56.82	-5,623.5	-1,263.7	1,179.7	1,086.9	92.83	12.708		
13,100.0	7,535.0	6,968.0	6,924.1	98.8	12.3	57.39	-5,625.4	-1,269.7	1,159.7	1,064.8	94.85	12.226		
13,200.0	7,535.0	6,968.0	6,924.1	100.5	12.3	57.39	-5,625.4	-1,269.7	1,147.9	1,051.6	96.32	11.918		
13,287.8	7,535.0	6,977.9	6,932.3	102.1	12.3	57.88	-5,627.1	-1,274.9	1,144.6	1,046.5	98.11	11.667 CC		
13,300.0	7,535.0	6,979.0	6,933.2	102.3	12.3	57.93	-5,627.3	-1,275.4	1,144.7	1,046.3	98.34	11.640 ES		
13,400.0	7,535.0	6,988.3	6,940.9	104.0	12.3	58.38	-5,628.9	-1,280.4	1,150.0	1,049.7	100.28	11.468		
13,500.0	7,535.0	7,000.0	6,950.5	105.8	12.3	58.96	-5,631.1	-1,286.7	1,163.7	1,061.4	102.35	11.371		
13,600.0	7,535.0	7,011.4	6,959.8	107.5	12.3	59.52	-5,633.3	-1,293.0	1,185.6	1,081.2	104.41	11.355 SF		
13,700.0	7,535.0	7,026.3	6,971.8	109.3	12.3	60.24	-5,636.2	-1,301.2	1,215.1	1,108.4	106.65	11.393		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		S34-T2N-R66W (McConahay) - McConahay 1A-34H - Hz - Hz											Offset Site Error:		0.0 ft
Survey Program:		785-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	7,535.0	7,043.1	6,985.3	111.0	12.4	61.05	-5,639.7	-1,310.7	1,251.6	1,142.6	108.98	11.484			
13,900.0	7,535.0	7,063.0	7,001.1	112.7	12.4	62.01	-5,644.0	-1,321.9	1,294.5	1,183.0	111.47	11.613			
14,000.0	7,535.0	7,072.9	7,009.0	114.5	12.4	62.49	-5,646.2	-1,327.7	1,343.2	1,229.7	113.48	11.836			
14,100.0	7,535.0	7,083.9	7,017.5	116.2	12.4	63.01	-5,648.6	-1,334.1	1,397.2	1,281.6	115.54	12.092			
14,200.0	7,535.0	7,095.0	7,026.1	118.0	12.4	63.53	-5,651.0	-1,340.7	1,455.9	1,338.3	117.62	12.378			
14,300.0	7,535.0	7,107.2	7,035.4	119.7	12.4	64.11	-5,653.8	-1,348.1	1,518.7	1,398.9	119.75	12.683			
14,400.0	7,535.0	7,127.0	7,050.2	121.5	12.5	65.02	-5,658.4	-1,360.4	1,585.2	1,463.0	122.21	12.971			
14,500.0	7,535.0	7,127.0	7,050.2	123.2	12.5	65.02	-5,658.4	-1,360.4	1,654.8	1,531.0	123.79	13.367			
14,600.0	7,535.0	7,140.5	7,060.1	124.9	12.5	65.64	-5,661.6	-1,369.0	1,727.2	1,601.3	125.98	13.711			
14,672.4	7,535.0	7,147.1	7,064.8	126.2	12.5	65.94	-5,663.2	-1,373.4	1,781.3	1,653.8	127.42	13.980			
14,672.9	7,535.0	7,147.2	7,064.9	126.2	12.5	65.94	-5,663.2	-1,373.4	1,781.7	1,654.2	127.43	13.982			



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1B-34H-H266 - 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									
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	9.0	9.0	0.0	0.0	-160.76	-6,363.9	-2,221.2	6,740.4							
100.0	100.0	109.0	109.0	0.2	0.1	-160.76	-6,363.9	-2,221.2	6,740.4	6,740.1	0.30	N/A				
200.0	200.0	1,324.7	1,318.0	0.3	3.0	-160.86	-6,266.9	-2,174.6	6,725.5	6,722.5	3.02	2,229.847				
300.0	300.0	1,423.4	1,415.2	0.5	3.4	-160.88	-6,252.2	-2,167.5	6,709.1	6,705.6	3.45	1,946.656				
400.0	400.0	1,522.0	1,512.5	0.7	3.7	-160.90	-6,237.4	-2,160.4	6,692.6	6,688.7	3.88	1,725.544				
500.0	500.0	1,620.6	1,609.7	0.8	4.0	-160.91	-6,222.7	-2,153.3	6,676.1	6,671.8	4.31	1,548.274				
600.0	600.0	1,719.2	1,707.0	1.0	4.3	-160.93	-6,207.9	-2,146.2	6,659.6	6,654.8	4.75	1,403.078				
700.0	700.0	1,817.8	1,804.2	1.2	4.7	-160.94	-6,193.2	-2,139.1	6,643.1	6,637.9	5.18	1,282.031				
800.0	800.0	1,916.4	1,901.5	1.4	5.0	-160.96	-6,178.4	-2,132.1	6,626.6	6,621.0	5.62	1,179.608				
900.0	900.0	2,015.0	1,998.7	1.5	5.3	-160.98	-6,163.7	-2,125.0	6,610.1	6,604.1	6.05	1,091.843				
1,000.0	1,000.0	2,113.6	2,095.9	1.7	5.6	-160.99	-6,148.9	-2,117.9	6,593.6	6,587.2	6.49	1,015.816				
1,100.0	1,100.0	2,212.3	2,193.2	1.9	6.0	-161.01	-6,134.2	-2,110.8	6,577.2	6,570.2	6.93	949.332				
1,200.0	1,200.0	2,310.9	2,290.5	2.1	6.3	-108.95	-6,119.4	-2,103.7	6,561.0	6,554.9	6.09	1,076.451				
1,300.0	1,300.0	2,409.6	2,387.8	2.2	6.6	-109.14	-6,104.7	-2,096.6	6,545.3	6,538.9	6.45	1,014.832				
1,400.0	1,399.9	2,508.2	2,485.1	2.4	7.0	-109.34	-6,089.9	-2,089.5	6,530.2	6,523.4	6.81	959.217				
1,500.0	1,499.7	2,606.9	2,582.3	2.6	7.3	-109.55	-6,075.2	-2,082.4	6,515.7	6,508.6	7.17	908.517				
1,600.0	1,599.4	2,705.5	2,679.6	2.8	7.6	-109.76	-6,060.4	-2,075.3	6,501.8	6,494.3	7.54	861.862				
1,619.7	1,619.0	2,724.9	2,698.7	2.8	7.7	-109.81	-6,057.5	-2,073.9	6,499.2	6,491.5	7.62	853.117				
1,700.0	1,699.0	2,804.0	2,776.7	3.0	8.0	-109.88	-6,045.7	-2,068.2	6,488.3	6,480.4	7.92	819.276				
1,800.0	1,798.5	2,902.5	2,873.9	3.2	8.3	-109.98	-6,031.0	-2,061.1	6,474.9	6,466.6	8.30	780.193				
1,900.0	1,898.1	3,001.0	2,971.0	3.4	8.6	-110.07	-6,016.2	-2,054.1	6,461.4	6,452.7	8.68	744.217				
2,000.0	1,997.7	3,099.6	3,068.2	3.6	9.0	-110.16	-6,001.5	-2,047.0	6,448.0	6,438.9	9.07	711.045				
2,100.0	2,097.3	3,198.1	3,165.3	3.9	9.3	-110.26	-5,986.8	-2,039.9	6,434.6	6,425.1	9.46	680.398				
2,200.0	2,196.9	3,296.6	3,262.5	4.1	9.6	-110.35	-5,972.0	-2,032.8	6,421.2	6,411.3	9.85	652.028				
2,300.0	2,296.5	3,395.1	3,359.6	4.3	10.0	-110.45	-5,957.3	-2,025.7	6,407.8	6,397.6	10.24	625.710				
2,400.0	2,396.1	3,493.6	3,456.8	4.5	10.3	-110.55	-5,942.6	-2,018.6	6,394.4	6,383.8	10.64	601.246				
2,500.0	2,495.7	3,592.2	3,554.0	4.7	10.6	-110.64	-5,927.8	-2,011.5	6,381.1	6,370.1	11.03	578.458				
2,600.0	2,595.3	3,690.7	3,651.1	5.0	11.0	-110.74	-5,913.1	-2,004.5	6,367.8	6,356.4	11.43	557.189				
2,700.0	2,694.8	3,789.2	3,748.3	5.2	11.3	-110.84	-5,898.4	-1,997.4	6,354.5	6,342.6	11.83	537.299				
2,800.0	2,794.4	3,887.7	3,845.4	5.4	11.6	-110.94	-5,883.6	-1,990.3	6,341.2	6,329.0	12.23	518.663				
2,900.0	2,894.0	3,986.3	3,942.6	5.6	12.0	-111.03	-5,868.9	-1,983.2	6,327.9	6,315.3	12.63	501.171				
3,000.0	2,993.6	4,084.8	4,039.7	5.9	12.3	-111.13	-5,854.2	-1,976.1	6,314.7	6,301.6	13.03	484.725				
3,100.0	3,093.2	4,183.3	4,136.9	6.1	12.6	-111.23	-5,839.4	-1,969.0	6,301.4	6,288.0	13.43	469.236				
3,200.0	3,192.8	4,281.8	4,234.1	6.3	13.0	-111.33	-5,824.7	-1,961.9	6,288.2	6,274.4	13.83	454.625				
3,300.0	3,292.4	4,380.4	4,331.2	6.5	13.3	-111.43	-5,809.9	-1,954.9	6,275.0	6,260.8	14.23	440.821				
3,400.0	3,392.0	4,478.9	4,428.4	6.8	13.6	-111.53	-5,795.2	-1,947.8	6,261.8	6,247.2	14.64	427.762				
3,500.0	3,491.6	4,577.4	4,525.5	7.0	14.0	-111.63	-5,780.5	-1,940.7	6,248.7	6,233.6	15.04	415.389				
3,600.0	3,591.1	4,675.9	4,622.7	7.2	14.3	-111.73	-5,765.7	-1,933.6	6,235.6	6,220.1	15.45	403.651				
3,700.0	3,690.7	4,774.4	4,719.8	7.5	14.6	-111.83	-5,751.0	-1,926.5	6,222.4	6,206.6	15.85	392.501				
3,800.0	3,790.3	4,873.0	4,817.0	7.7	14.9	-111.94	-5,736.3	-1,919.4	6,209.3	6,193.1	16.26	381.897				
3,900.0	3,889.9	4,971.5	4,914.2	7.9	15.3	-112.04	-5,721.5	-1,912.3	6,196.3	6,179.6	16.67	371.801				
4,000.0	3,989.5	5,070.0	5,011.3	8.2	15.6	-112.14	-5,706.8	-1,905.3	6,183.2	6,166.1	17.07	362.176				
4,100.0	4,089.1	5,168.5	5,108.5	8.4	15.9	-112.24	-5,692.1	-1,898.2	6,170.2	6,152.7	17.48	352.992				
4,200.0	4,188.7	5,267.1	5,205.6	8.6	16.3	-112.35	-5,677.3	-1,891.1	6,157.1	6,139.3	17.89	344.219				
4,300.0	4,288.3	5,365.6	5,302.8	8.9	16.6	-112.45	-5,662.6	-1,884.0	6,144.1	6,125.8	18.30	335.831				
4,400.0	4,387.9	5,464.1	5,399.9	9.1	16.9	-112.56	-5,647.9	-1,876.9	6,131.2	6,112.5	18.70	327.803				
4,500.0	4,487.4	5,562.6	5,497.1	9.3	17.3	-112.66	-5,633.1	-1,869.8	6,118.2	6,099.1	19.11	320.113				
4,600.0	4,587.0	5,661.1	5,594.3	9.6	17.6	-112.77	-5,618.4	-1,862.7	6,105.3	6,085.7	19.52	312.740				
4,700.0	4,686.6	5,759.7	5,691.4	9.8	17.9	-112.87	-5,603.7	-1,855.7	6,092.4	6,072.4	19.93	305.664				
4,800.0	4,786.2	5,858.2	5,788.6	10.0	18.3	-112.98	-5,588.9	-1,848.6	6,079.5	6,059.1	20.34	298.870				
4,900.0	4,885.8	5,956.7	5,885.7	10.3	18.6	-113.09	-5,574.2	-1,841.5	6,066.6	6,045.8	20.75	292.339				
5,000.0	4,985.4	6,055.2	5,982.9	10.5	18.9	-113.19	-5,559.5	-1,834.4	6,053.7	6,032.6	21.16	286.058				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1B-34H-H266 - 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	5,085.0	6,153.8	6,080.0	10.7	19.3	-113.30	-5,544.7	-1,827.3	6,040.9	6,019.3	21.57	280.013				
5,200.0	5,184.6	6,252.3	6,177.2	11.0	19.6	-113.41	-5,530.0	-1,820.2	6,028.1	6,006.1	21.99	274.190				
5,300.0	5,284.2	6,350.8	6,274.4	11.2	19.9	-113.52	-5,515.3	-1,813.1	6,015.3	5,992.9	22.40	268.577				
5,400.0	5,383.7	6,449.3	6,371.5	11.4	20.3	-113.63	-5,500.5	-1,806.1	6,002.5	5,979.7	22.81	263.164				
5,500.0	5,483.3	6,547.9	6,468.7	11.7	20.6	-113.74	-5,485.8	-1,799.0	5,989.8	5,966.6	23.22	257.940				
5,600.0	5,582.9	6,646.4	6,565.8	11.9	20.9	-113.85	-5,471.1	-1,791.9	5,977.1	5,953.4	23.63	252.896				
5,700.0	5,682.5	6,744.9	6,663.0	12.1	21.3	-113.96	-5,456.3	-1,784.8	5,964.3	5,940.3	24.05	248.022				
5,800.0	5,782.1	6,843.4	6,760.1	12.4	21.6	-114.07	-5,441.6	-1,777.7	5,951.7	5,927.2	24.46	243.310				
5,900.0	5,881.7	6,941.9	6,857.3	12.6	22.0	-114.18	-5,426.9	-1,770.6	5,939.0	5,914.1	24.88	238.752				
6,000.0	5,981.3	7,041.0	6,905.7	12.8	22.1	-114.23	-5,419.5	-1,767.2	5,926.6	5,901.4	25.19	235.251				
6,100.0	6,080.9	7,100.0	6,914.6	13.1	22.1	-114.24	-5,418.3	-1,766.8	5,915.5	5,890.1	25.43	232.588				
6,200.0	6,180.5	7,025.6	6,940.0	13.3	22.2	-114.26	-5,414.7	-1,766.3	5,905.8	5,880.1	25.69	229.862				
6,300.0	6,280.0	7,050.0	6,964.1	13.5	22.3	-114.26	-5,411.6	-1,766.9	5,897.5	5,871.5	25.95	227.267				
6,400.0	6,379.6	7,050.0	6,964.1	13.8	22.3	-114.26	-5,411.6	-1,766.9	5,890.5	5,864.4	26.17	225.046				
6,500.0	6,479.2	7,078.1	6,992.0	14.0	22.3	-114.26	-5,408.4	-1,768.9	5,884.9	5,858.5	26.43	222.701				
6,600.0	6,578.8	7,100.0	7,013.6	14.2	22.3	-114.25	-5,406.1	-1,771.4	5,880.8	5,854.1	26.67	220.505				
6,700.0	6,678.4	7,100.0	7,013.6	14.5	22.3	-114.25	-5,406.1	-1,771.4	5,878.1	5,851.2	26.89	218.557				
6,800.0	6,778.0	7,150.0	7,062.6	14.7	22.4	-114.20	-5,401.5	-1,780.0	5,876.8	5,849.7	27.15	216.487				
6,857.7	6,835.4	7,150.0	7,062.6	14.8	22.4	-114.20	-5,401.5	-1,780.0	5,876.5	5,849.3	27.28	215.444				
6,900.0	6,877.6	7,150.0	7,062.6	14.9	22.4	-114.20	-5,401.5	-1,780.0	5,876.7	5,849.3	27.37	214.698				
6,953.0	6,930.4	7,150.0	7,062.6	15.1	22.4	-114.20	-5,401.5	-1,780.0	5,877.3	5,849.8	27.49	213.787				
7,000.0	6,977.2	7,150.0	7,062.6	15.1	22.4	-55.62	-5,401.5	-1,780.0	5,876.4	5,848.9	27.49	213.758				
7,050.0	7,027.0	7,173.5	7,085.4	15.2	22.4	-16.66	-5,399.8	-1,785.4	5,871.5	5,844.2	27.33	214.800				
7,100.0	7,076.2	7,200.0	7,110.8	15.2	22.4	-3.68	-5,398.1	-1,792.7	5,863.1	5,836.1	27.02	217.012				
7,150.0	7,124.6	7,200.0	7,110.8	15.3	22.4	2.27	-5,398.1	-1,792.7	5,850.6	5,824.1	26.54	220.420				
7,200.0	7,171.8	7,200.0	7,110.8	15.2	22.4	5.82	-5,398.1	-1,792.7	5,834.5	5,808.6	25.93	225.047				
7,250.0	7,217.4	7,200.0	7,110.8	15.2	22.4	8.36	-5,398.1	-1,792.7	5,814.9	5,789.7	25.18	230.916				
7,300.0	7,261.1	7,200.0	7,110.8	15.2	22.4	10.45	-5,398.1	-1,792.7	5,791.8	5,767.5	24.33	238.005				
7,350.0	7,302.5	7,200.0	7,110.8	15.2	22.4	12.36	-5,398.1	-1,792.7	5,765.5	5,742.1	23.42	246.186				
7,400.0	7,341.3	7,224.6	7,134.1	15.1	22.3	14.42	-5,396.8	-1,800.5	5,735.8	5,713.3	22.52	254.646				
7,450.0	7,377.2	7,250.0	7,157.9	15.1	22.3	16.68	-5,395.8	-1,809.5	5,703.5	5,681.7	21.72	262.603				
7,500.0	7,410.0	7,250.0	7,157.9	15.1	22.3	19.06	-5,395.8	-1,809.5	5,668.1	5,647.0	21.03	269.495				
7,550.0	7,439.4	7,250.0	7,157.9	15.2	22.3	21.87	-5,395.8	-1,809.5	5,630.2	5,609.5	20.64	272.735				
7,600.0	7,465.2	7,250.0	7,157.9	15.2	22.3	25.31	-5,395.8	-1,809.5	5,590.0	5,569.3	20.72	269.768				
7,650.0	7,487.1	7,250.0	7,157.9	15.3	22.3	29.65	-5,395.8	-1,809.5	5,547.9	5,526.4	21.46	258.578				
7,700.0	7,505.1	7,250.0	7,157.9	15.5	22.3	35.26	-5,395.8	-1,809.5	5,504.0	5,481.0	23.03	239.033				
7,750.0	7,518.9	7,250.0	7,157.9	15.7	22.3	42.68	-5,395.8	-1,809.5	5,458.7	5,433.2	25.55	213.617				
7,800.0	7,528.5	7,250.0	7,157.9	15.9	22.3	52.52	-5,395.8	-1,809.5	5,412.3	5,383.4	28.95	186.956				
7,850.0	7,533.9	7,250.0	7,157.9	16.2	22.3	65.23	-5,395.8	-1,809.5	5,365.2	5,332.5	32.62	164.480				
7,886.2	7,535.0	7,250.0	7,157.9	16.4	22.3	76.05	-5,395.8	-1,809.5	5,330.7	5,296.0	34.73	153.506				
7,900.0	7,535.0	7,250.0	7,157.9	16.5	22.3	76.05	-5,395.8	-1,809.5	5,317.5	5,282.7	34.83	152.688				
8,000.0	7,535.0	7,250.0	7,157.9	17.2	22.3	76.05	-5,395.8	-1,809.5	5,222.3	5,186.6	35.64	146.542				
8,100.0	7,535.0	7,250.0	7,157.9	18.1	22.3	76.05	-5,395.8	-1,809.5	5,127.2	5,090.6	36.59	140.139				
8,200.0	7,535.0	7,250.0	7,157.9	19.1	22.3	76.05	-5,395.8	-1,809.5	5,032.3	4,994.6	37.65	133.652				
8,300.0	7,535.0	7,250.0	7,157.9	20.2	22.3	76.05	-5,395.8	-1,809.5	4,937.6	4,898.8	38.81	127.212				
8,400.0	7,535.0	7,250.0	7,157.9	21.4	22.3	76.05	-5,395.8	-1,809.5	4,843.1	4,803.1	40.05	120.912				
8,500.0	7,535.0	7,250.0	7,157.9	22.7	22.3	76.05	-5,395.8	-1,809.5	4,748.9	4,707.5	41.36	114.816				
8,600.0	7,535.0	7,250.0	7,157.9	24.0	22.3	76.05	-5,395.8	-1,809.5	4,654.9	4,612.1	42.72	108.961				
8,700.0	7,535.0	7,250.0	7,157.9	25.4	22.3	76.05	-5,395.8	-1,809.5	4,561.1	4,517.0	44.12	103.369				
8,800.0	7,535.0	7,250.0	7,157.9	26.9	22.3	76.05	-5,395.8	-1,809.5	4,467.6	4,422.0	45.57	98.048				
8,900.0	7,535.0	7,250.0	7,157.9	28.3	22.3	76.05	-5,395.8	-1,809.5	4,374.4	4,327.4	47.04	92.998				
9,000.0	7,535.0	7,250.0	7,157.9	29.8	22.3	76.05	-5,395.8	-1,809.5	4,281.5	4,233.0	48.54	88.214				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1B-34H-H266 - 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	7,535.0	7,250.0	7,157.9	31.3	22.3	76.05	-5,395.8	-1,809.5	4,188.9	4,138.9	50.06	83.685		
9,200.0	7,535.0	7,250.0	7,157.9	32.9	22.3	76.05	-5,395.8	-1,809.5	4,096.7	4,045.1	51.60	79.401		
9,300.0	7,535.0	7,250.0	7,157.9	34.4	22.3	76.05	-5,395.8	-1,809.5	4,004.9	3,951.7	53.15	75.349		
9,400.0	7,535.0	7,250.0	7,157.9	36.0	22.3	76.05	-5,395.8	-1,809.5	3,913.4	3,858.7	54.72	71.517		
9,500.0	7,535.0	7,250.0	7,157.9	37.6	22.3	76.05	-5,395.8	-1,809.5	3,822.4	3,766.1	56.30	67.891		
9,600.0	7,535.0	7,250.0	7,157.9	39.2	22.3	76.05	-5,395.8	-1,809.5	3,731.9	3,674.0	57.90	64.459		
9,700.0	7,535.0	7,250.0	7,157.9	40.9	22.3	76.05	-5,395.8	-1,809.5	3,641.8	3,582.3	59.50	61.210		
9,800.0	7,535.0	7,250.0	7,157.9	42.5	22.3	76.05	-5,395.8	-1,809.5	3,552.3	3,491.2	61.11	58.132		
9,900.0	7,535.0	7,250.0	7,157.9	44.1	22.3	76.05	-5,395.8	-1,809.5	3,463.3	3,400.6	62.73	55.214		
10,000.0	7,535.0	7,250.0	7,157.9	45.8	22.3	76.05	-5,395.8	-1,809.5	3,375.0	3,310.6	64.35	52.448		
10,100.0	7,535.0	7,250.0	7,157.9	47.4	22.3	76.05	-5,395.8	-1,809.5	3,287.3	3,221.3	65.98	49.824		
10,200.0	7,535.0	7,250.0	7,157.9	49.1	22.3	76.05	-5,395.8	-1,809.5	3,200.4	3,132.8	67.61	47.333		
10,300.0	7,535.0	7,229.5	7,138.7	50.8	22.3	75.33	-5,396.6	-1,802.2	3,113.9	3,044.9	69.01	45.119		
10,400.0	7,535.0	7,228.3	7,137.6	52.5	22.3	75.28	-5,396.6	-1,801.8	3,028.5	2,957.9	70.64	42.873		
10,500.0	7,535.0	7,227.1	7,136.5	54.1	22.3	75.24	-5,396.7	-1,801.3	2,944.1	2,871.8	72.27	40.739		
10,600.0	7,535.0	7,225.9	7,135.4	55.8	22.3	75.20	-5,396.8	-1,800.9	2,860.7	2,786.8	73.90	38.712		
10,700.0	7,535.0	7,224.7	7,134.2	57.5	22.3	75.15	-5,396.8	-1,800.5	2,778.3	2,702.8	75.53	36.785		
10,800.0	7,535.0	7,223.4	7,133.0	59.2	22.3	75.11	-5,396.9	-1,800.1	2,697.2	2,620.0	77.16	34.955		
10,900.0	7,535.0	7,222.1	7,131.8	60.9	22.3	75.06	-5,396.9	-1,799.7	2,617.3	2,538.5	78.80	33.216		
11,000.0	7,535.0	7,220.8	7,130.6	62.6	22.3	75.02	-5,397.0	-1,799.2	2,538.9	2,458.5	80.43	31.565		
11,100.0	7,535.0	7,219.5	7,129.3	64.3	22.3	74.97	-5,397.1	-1,798.8	2,462.0	2,380.0	82.07	29.998		
11,200.0	7,535.0	7,200.0	7,110.8	66.0	22.4	74.27	-5,398.1	-1,792.7	2,387.2	2,303.7	83.44	28.610		
11,300.0	7,535.0	7,200.0	7,110.8	67.7	22.4	74.27	-5,398.1	-1,792.7	2,313.9	2,228.8	85.09	27.192		
11,400.0	7,535.0	7,200.0	7,110.8	69.4	22.4	74.27	-5,398.1	-1,792.7	2,242.6	2,155.9	86.75	25.851		
11,496.2	7,535.0	7,200.0	7,110.8	71.1	22.4	74.27	-5,398.1	-1,792.7	2,176.2	2,087.9	88.35	24.633		
11,500.0	7,535.0	7,200.0	7,110.8	71.2	22.4	74.27	-5,398.1	-1,792.7	2,173.6	2,085.2	88.41	24.586		
11,600.0	7,535.0	7,200.0	7,110.8	72.9	22.4	74.27	-5,398.1	-1,792.7	2,107.1	2,017.1	90.07	23.395		
11,700.0	7,535.0	7,200.0	7,110.8	74.6	22.4	74.27	-5,398.1	-1,792.7	2,043.4	1,951.6	91.73	22.276		
11,800.0	7,535.0	7,200.0	7,110.8	76.3	22.4	74.27	-5,398.1	-1,792.7	1,982.6	1,889.2	93.39	21.229		
11,900.0	7,535.0	7,200.0	7,110.8	78.0	22.4	74.27	-5,398.1	-1,792.7	1,925.1	1,830.1	95.06	20.252		
12,000.0	7,535.0	7,200.0	7,110.8	79.7	22.4	74.27	-5,398.1	-1,792.7	1,871.2	1,774.5	96.72	19.346		
12,100.0	7,535.0	7,200.0	7,110.8	81.5	22.4	74.27	-5,398.1	-1,792.7	1,821.2	1,722.8	98.39	18.510		
12,200.0	7,535.0	7,200.0	7,110.8	83.2	22.4	74.27	-5,398.1	-1,792.7	1,775.4	1,675.4	100.05	17.744		
12,296.2	7,535.0	7,200.0	7,110.8	84.9	22.4	74.27	-5,398.1	-1,792.7	1,735.7	1,634.0	101.66	17.074		
12,300.0	7,535.0	7,200.0	7,110.8	84.9	22.4	74.27	-5,398.1	-1,792.7	1,734.2	1,632.5	101.74	17.046		
12,400.0	7,535.0	7,200.0	7,110.8	86.6	22.4	74.04	-5,398.1	-1,792.7	1,696.2	1,592.5	103.70	16.357		
12,492.9	7,535.0	7,200.0	7,110.8	88.3	22.4	73.84	-5,398.1	-1,792.7	1,662.6	1,557.2	105.43	15.771		
12,500.0	7,535.0	7,200.0	7,110.8	88.4	22.4	73.84	-5,398.1	-1,792.7	1,660.1	1,554.6	105.54	15.730		
12,600.0	7,535.0	7,200.0	7,110.8	90.1	22.4	73.84	-5,398.1	-1,792.7	1,628.1	1,520.9	107.21	15.186		
12,700.0	7,535.0	7,200.0	7,110.8	91.9	22.4	73.84	-5,398.1	-1,792.7	1,601.6	1,492.7	108.88	14.710		
12,800.0	7,535.0	7,200.0	7,110.8	93.6	22.4	73.84	-5,398.1	-1,792.7	1,581.0	1,470.5	110.55	14.302		
12,900.0	7,535.0	7,200.0	7,110.8	95.3	22.4	73.84	-5,398.1	-1,792.7	1,566.6	1,454.4	112.22	13.960		
13,000.0	7,535.0	7,200.0	7,110.8	97.1	22.4	73.84	-5,398.1	-1,792.7	1,558.4	1,444.5	113.89	13.684		
13,077.4	7,535.0	7,200.0	7,110.8	98.4	22.4	73.84	-5,398.1	-1,792.7	1,556.5	1,441.3	115.18	13.514 CC		
13,100.0	7,535.0	7,200.0	7,110.8	98.8	22.4	73.84	-5,398.1	-1,792.7	1,556.7	1,441.1	115.56	13.471 ES		
13,200.0	7,535.0	7,200.0	7,110.8	100.5	22.4	73.84	-5,398.1	-1,792.7	1,561.3	1,444.1	117.23	13.318		
13,300.0	7,535.0	7,200.0	7,110.8	102.3	22.4	73.84	-5,398.1	-1,792.7	1,572.3	1,453.4	118.90	13.224		
13,400.0	7,535.0	7,200.0	7,110.8	104.0	22.4	73.84	-5,398.1	-1,792.7	1,589.6	1,469.0	120.57	13.183 SF		
13,500.0	7,535.0	7,200.0	7,110.8	105.8	22.4	73.84	-5,398.1	-1,792.7	1,612.9	1,490.6	122.25	13.193		
13,600.0	7,535.0	7,200.0	7,110.8	107.5	22.4	73.84	-5,398.1	-1,792.7	1,641.9	1,518.0	123.92	13.250		
13,700.0	7,535.0	7,181.3	7,092.9	109.3	22.4	73.15	-5,399.2	-1,787.5	1,676.1	1,550.9	125.14	13.393		
13,800.0	7,535.0	7,179.6	7,091.3	111.0	22.4	73.09	-5,399.4	-1,787.0	1,715.7	1,588.9	126.77	13.534		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S34-T2N-R66W (McConahay) - McConahay 1B-34H-H266 - Hz - Plan #3													<b>Offset Site Error:</b>	0.0 ft
<b>Survey Program:</b> 0-Geolink MWD													<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
13,900.0	7,535.0	7,177.8	7,089.5	112.7	22.4	73.02	-5,399.5	-1,786.6	1,760.1	1,631.7	128.39	13.709		
14,000.0	7,535.0	7,175.9	7,087.7	114.5	22.4	72.96	-5,399.6	-1,786.1	1,808.9	1,678.9	130.01	13.914		
14,100.0	7,535.0	7,174.0	7,085.9	116.2	22.4	72.89	-5,399.7	-1,785.6	1,861.8	1,730.2	131.62	14.145		
14,200.0	7,535.0	7,172.0	7,084.0	118.0	22.4	72.81	-5,399.9	-1,785.1	1,918.5	1,785.2	133.24	14.399		
14,300.0	7,535.0	7,170.0	7,082.0	119.7	22.4	72.74	-5,400.0	-1,784.6	1,978.6	1,843.7	134.85	14.672		
14,400.0	7,535.0	7,167.9	7,080.0	121.5	22.4	72.66	-5,400.2	-1,784.1	2,041.8	1,905.3	136.46	14.963		
14,500.0	7,535.0	7,150.0	7,062.6	123.2	22.4	72.01	-5,401.5	-1,780.0	2,108.0	1,970.4	137.62	15.318		
14,600.0	7,535.0	7,150.0	7,062.6	124.9	22.4	72.01	-5,401.5	-1,780.0	2,176.6	2,037.4	139.28	15.628		
14,672.4	7,535.0	7,150.0	7,062.6	126.2	22.4	72.01	-5,401.5	-1,780.0	2,227.8	2,087.3	140.48	15.858		
14,672.9	7,535.0	7,150.0	7,062.6	126.2	22.4	72.01	-5,401.5	-1,780.0	2,228.1	2,087.6	140.49	15.860		



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1C-34H-H266 - Hz - Plan #1													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	9.0	9.0	0.0	0.0	-160.79	-6,374.8	-2,221.2	6,750.7							
100.0	100.0	109.0	109.0	0.2	0.1	-160.79	-6,374.8	-2,221.2	6,750.7	6,750.4	0.30	N/A				
200.0	200.0	209.0	209.0	0.3	0.3	-160.79	-6,374.8	-2,221.2	6,750.7	6,750.0	0.65	N/A				
300.0	300.0	309.8	309.8	0.5	0.5	-160.79	-6,374.8	-2,221.2	6,750.7	6,749.7	1.00	6,764.705				
400.0	400.0	418.2	418.2	0.7	0.7	-160.80	-6,375.1	-2,220.1	6,750.6	6,749.2	1.36	4,955.754				
500.0	500.0	526.6	526.5	0.8	0.9	-160.83	-6,376.0	-2,216.9	6,750.4	6,748.7	1.73	3,906.734				
600.0	600.0	634.8	634.6	1.0	1.1	-160.87	-6,377.4	-2,211.8	6,750.1	6,748.0	2.10	3,219.883				
700.0	700.0	742.8	742.3	1.2	1.3	-160.93	-6,379.3	-2,204.7	6,749.7	6,747.2	2.47	2,733.776				
800.0	800.0	850.4	849.6	1.4	1.5	-161.01	-6,381.8	-2,195.8	6,749.1	6,746.3	2.85	2,370.556				
900.0	900.0	957.7	956.3	1.5	1.8	-161.11	-6,384.8	-2,184.9	6,748.5	6,745.2	3.23	2,088.078				
1,000.0	1,000.0	1,064.5	1,062.3	1.7	2.1	-161.22	-6,388.3	-2,172.1	6,747.7	6,744.1	3.62	1,861.555				
1,100.0	1,100.0	1,170.8	1,167.4	1.9	2.4	-161.35	-6,392.3	-2,157.6	6,746.9	6,742.9	4.03	1,675.463				
1,200.0	1,200.0	1,276.3	1,271.6	2.1	2.7	-109.27	-6,396.8	-2,141.2	6,746.3	6,741.5	4.78	1,410.142				
1,261.0	1,261.0	1,338.5	1,332.8	2.2	2.9	-109.37	-6,399.7	-2,130.8	6,746.2	6,741.1	5.09	1,324.379				
1,300.0	1,300.0	1,376.7	1,370.4	2.2	3.0	-109.44	-6,401.5	-2,124.3	6,746.2	6,740.9	5.29	1,275.601				
1,400.0	1,399.9	1,474.3	1,466.5	2.4	3.4	-109.61	-6,406.1	-2,107.8	6,746.8	6,741.0	5.79	1,164.531				
1,500.0	1,499.7	1,571.6	1,562.3	2.6	3.7	-109.79	-6,410.6	-2,091.3	6,748.0	6,741.7	6.31	1,070.054				
1,600.0	1,599.4	1,668.4	1,657.6	2.8	4.0	-109.98	-6,415.1	-2,074.8	6,749.9	6,743.1	6.83	988.560				
1,619.7	1,619.0	1,687.5	1,676.4	2.8	4.1	-110.02	-6,416.0	-2,071.6	6,750.4	6,743.5	6.93	973.845				
1,700.0	1,699.0	1,765.0	1,752.7	3.0	4.4	-110.19	-6,419.6	-2,058.5	6,752.3	6,745.0	7.36	917.749				
1,800.0	1,798.5	1,861.6	1,847.7	3.2	4.7	-110.40	-6,424.2	-2,042.1	6,754.9	6,747.0	7.89	855.797				
1,900.0	1,898.1	1,958.1	1,942.8	3.4	5.0	-110.61	-6,428.7	-2,025.7	6,757.5	6,749.0	8.43	801.274				
2,000.0	1,997.7	2,054.7	2,037.9	3.6	5.4	-110.82	-6,433.2	-2,009.3	6,760.2	6,751.2	8.98	753.002				
2,100.0	2,097.3	2,151.3	2,132.9	3.9	5.7	-111.03	-6,437.7	-1,992.9	6,763.0	6,753.5	9.53	710.021				
2,200.0	2,196.9	2,247.8	2,228.0	4.1	6.0	-111.25	-6,442.2	-1,976.6	6,765.9	6,755.9	10.08	671.547				
2,300.0	2,296.5	2,344.4	2,323.0	4.3	6.4	-111.46	-6,446.7	-1,960.2	6,769.0	6,758.3	10.63	636.936				
2,400.0	2,396.1	2,440.9	2,418.1	4.5	6.7	-111.67	-6,451.2	-1,943.8	6,772.1	6,760.9	11.18	605.657				
2,500.0	2,495.7	2,537.5	2,513.1	4.7	7.1	-111.88	-6,455.8	-1,927.4	6,775.3	6,763.5	11.74	577.266				
2,600.0	2,595.3	2,634.1	2,608.2	5.0	7.4	-112.09	-6,460.3	-1,911.1	6,778.6	6,766.3	12.29	551.395				
2,700.0	2,694.8	2,730.6	2,703.2	5.2	7.7	-112.30	-6,464.8	-1,894.7	6,782.0	6,769.2	12.85	527.731				
2,800.0	2,794.4	2,827.2	2,798.3	5.4	8.1	-112.51	-6,469.3	-1,878.3	6,785.5	6,772.1	13.41	506.012				
2,900.0	2,894.0	2,923.8	2,893.4	5.6	8.4	-112.72	-6,473.8	-1,861.9	6,789.1	6,775.1	13.97	486.013				
3,000.0	2,993.6	3,020.3	2,988.4	5.9	8.8	-112.93	-6,478.3	-1,845.5	6,792.8	6,778.3	14.53	467.544				
3,100.0	3,093.2	3,116.9	3,083.5	6.1	9.1	-113.14	-6,482.8	-1,829.2	6,796.6	6,781.5	15.09	450.438				
3,200.0	3,192.8	3,213.4	3,178.5	6.3	9.5	-113.35	-6,487.3	-1,812.8	6,800.5	6,784.9	15.65	434.555				
3,300.0	3,292.4	3,310.0	3,273.6	6.5	9.8	-113.56	-6,491.9	-1,796.4	6,804.5	6,788.3	16.21	419.770				
3,400.0	3,392.0	3,406.6	3,368.6	6.8	10.1	-113.77	-6,496.4	-1,780.0	6,808.6	6,791.8	16.77	405.976				
3,500.0	3,491.6	3,503.1	3,463.7	7.0	10.5	-113.98	-6,500.9	-1,763.7	6,812.8	6,795.5	17.33	393.078				
3,600.0	3,591.1	3,599.7	3,558.7	7.2	10.8	-114.19	-6,505.4	-1,747.3	6,817.1	6,799.2	17.89	380.994				
3,700.0	3,690.7	3,696.2	3,653.8	7.5	11.2	-114.39	-6,509.9	-1,730.9	6,821.5	6,803.0	18.45	369.651				
3,800.0	3,790.3	3,792.8	3,748.9	7.7	11.5	-114.60	-6,514.4	-1,714.5	6,825.9	6,806.9	19.01	358.983				
3,900.0	3,889.9	3,889.4	3,843.9	7.9	11.9	-114.81	-6,518.9	-1,698.1	6,830.5	6,810.9	19.58	348.934				
4,000.0	3,989.5	3,985.9	3,939.0	8.2	12.2	-115.02	-6,523.5	-1,681.8	6,835.2	6,815.0	20.14	339.453				
4,100.0	4,089.1	4,082.5	4,034.0	8.4	12.5	-115.22	-6,528.0	-1,665.4	6,839.9	6,819.2	20.70	330.493				
4,200.0	4,188.7	4,179.1	4,129.1	8.6	12.9	-115.43	-6,532.5	-1,649.0	6,844.8	6,823.5	21.26	322.014				
4,300.0	4,288.3	4,275.6	4,224.1	8.9	13.2	-115.64	-6,537.0	-1,632.6	6,849.8	6,827.9	21.82	313.979				
4,400.0	4,387.9	4,372.2	4,319.2	9.1	13.6	-115.84	-6,541.5	-1,616.3	6,854.8	6,832.4	22.38	306.355				
4,500.0	4,487.4	4,468.7	4,414.2	9.3	13.9	-116.05	-6,546.0	-1,599.9	6,859.9	6,837.0	22.93	299.111				
4,600.0	4,587.0	4,565.3	4,509.3	9.6	14.3	-116.26	-6,550.5	-1,583.5	6,865.2	6,841.7	23.49	292.221				
4,700.0	4,686.6	4,661.9	4,604.4	9.8	14.6	-116.46	-6,555.1	-1,567.1	6,870.5	6,846.5	24.05	285.659				
4,800.0	4,786.2	4,758.4	4,699.4	10.0	14.9	-116.67	-6,559.6	-1,550.7	6,876.0	6,851.3	24.61	279.404				
4,900.0	4,885.8	4,855.0	4,794.5	10.3	15.3	-116.87	-6,564.1	-1,534.4	6,881.5	6,856.3	25.17	273.435				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1C-34H-H266 - Hz - Plan #1													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)				
5,000.0	4,985.4	4,951.5	4,889.5	10.5	15.6	-117.08	-6,568.6	-1,518.0	6,887.1	6,861.4	25.72	267.733		
5,100.0	5,085.0	5,048.1	4,984.6	10.7	16.0	-117.28	-6,573.1	-1,501.6	6,892.8	6,866.5	26.28	262.281		
5,200.0	5,184.6	5,144.7	5,079.6	11.0	16.3	-117.49	-6,577.6	-1,485.2	6,898.6	6,871.8	26.84	257.064		
5,300.0	5,284.2	5,241.2	5,174.7	11.2	16.7	-117.69	-6,582.1	-1,468.9	6,904.5	6,877.1	27.39	252.067		
5,400.0	5,383.7	5,337.8	5,269.7	11.4	17.0	-117.89	-6,586.6	-1,452.5	6,910.5	6,882.5	27.95	247.276		
5,500.0	5,483.3	5,434.4	5,364.8	11.7	17.4	-118.10	-6,591.2	-1,436.1	6,916.6	6,888.1	28.50	242.681		
5,600.0	5,582.9	5,530.9	5,459.9	11.9	17.7	-118.30	-6,595.7	-1,419.7	6,922.7	6,893.7	29.05	238.268		
5,700.0	5,682.5	5,627.5	5,554.9	12.1	18.0	-118.50	-6,600.2	-1,403.3	6,929.0	6,899.4	29.61	234.028		
5,800.0	5,782.1	5,724.0	5,650.0	12.4	18.4	-118.70	-6,604.7	-1,387.0	6,935.4	6,905.2	30.16	229.952		
5,900.0	5,881.7	5,820.6	5,745.0	12.6	18.7	-118.90	-6,609.2	-1,370.6	6,941.8	6,911.1	30.71	226.030		
6,000.0	5,981.3	5,917.2	5,840.1	12.8	19.1	-119.11	-6,613.7	-1,354.2	6,948.3	6,917.1	31.26	222.254		
6,100.0	6,080.9	6,013.7	5,935.1	13.1	19.4	-119.31	-6,618.2	-1,337.8	6,955.0	6,923.2	31.81	218.616		
6,200.0	6,180.5	6,110.3	6,030.2	13.3	19.8	-119.51	-6,622.8	-1,321.5	6,961.7	6,929.3	32.36	215.109		
6,300.0	6,280.0	6,206.8	6,125.2	13.5	20.1	-119.71	-6,627.3	-1,305.1	6,968.5	6,935.6	32.91	211.726		
6,400.0	6,379.6	6,303.4	6,220.3	13.8	20.4	-119.91	-6,631.8	-1,288.7	6,975.4	6,942.0	33.46	208.462		
6,500.0	6,479.2	6,400.0	6,315.4	14.0	20.8	-120.11	-6,636.3	-1,272.3	6,982.4	6,948.4	34.01	205.309		
6,600.0	6,578.8	6,496.5	6,410.4	14.2	21.1	-120.31	-6,640.8	-1,256.0	6,989.5	6,954.9	34.56	202.264		
6,700.0	6,678.4	6,593.1	6,505.5	14.5	21.5	-120.50	-6,645.3	-1,239.6	6,996.7	6,961.6	35.10	199.320		
6,800.0	6,778.0	6,689.7	6,600.5	14.7	21.8	-120.70	-6,649.8	-1,223.2	7,003.9	6,968.3	35.65	196.473		
6,900.0	6,877.6	6,786.2	6,695.6	14.9	22.2	-120.90	-6,654.4	-1,206.8	7,011.3	6,975.1	36.19	193.718		
6,953.0	6,930.4	6,837.4	6,746.0	15.1	22.4	-121.01	-6,656.7	-1,198.1	7,015.2	6,978.7	36.48	192.293		
7,000.0	6,977.2	6,882.9	6,790.8	15.1	22.5	-62.57	-6,658.9	-1,190.4	7,016.8	6,980.1	36.71	191.167		
7,050.0	7,027.0	6,931.5	6,838.6	15.2	22.7	-23.84	-6,661.1	-1,182.2	7,014.4	6,977.6	36.72	191.001		
7,100.0	7,076.2	6,950.0	6,856.8	15.2	22.8	-11.10	-6,662.0	-1,179.1	7,007.7	6,971.3	36.41	192.440		
7,150.0	7,124.6	6,950.0	6,856.8	15.3	22.8	-5.35	-6,662.0	-1,179.1	6,997.1	6,961.3	35.82	195.315		
7,200.0	7,171.8	6,972.7	6,879.2	15.2	22.8	-2.08	-6,663.2	-1,175.9	6,982.5	6,947.4	35.06	199.133		
7,250.0	7,217.4	7,000.0	6,906.4	15.2	22.9	0.12	-6,664.9	-1,173.3	6,964.2	6,930.1	34.11	204.169		
7,300.0	7,261.1	7,000.0	6,906.4	15.2	22.9	1.82	-6,664.9	-1,173.3	6,942.1	6,909.1	32.92	210.906		
7,350.0	7,302.5	7,000.0	6,906.4	15.2	22.9	3.25	-6,664.9	-1,173.3	6,916.4	6,884.8	31.55	219.214		
7,400.0	7,341.3	7,000.0	6,906.4	15.1	22.9	4.57	-6,664.9	-1,173.3	6,887.4	6,857.4	30.04	229.279		
7,450.0	7,377.2	7,021.1	6,927.4	15.1	22.9	5.90	-6,666.3	-1,172.2	6,855.1	6,826.7	28.43	241.137		
7,500.0	7,410.0	7,029.3	6,935.6	15.1	22.9	7.34	-6,666.9	-1,171.9	6,819.8	6,793.1	26.73	255.186		
7,550.0	7,439.4	7,050.0	6,956.2	15.2	22.9	9.02	-6,668.5	-1,171.8	6,781.9	6,756.9	25.00	271.244		
7,600.0	7,465.2	7,050.0	6,956.2	15.2	22.9	11.02	-6,668.5	-1,171.8	6,741.3	6,718.0	23.30	289.385		
7,650.0	7,487.1	7,050.0	6,956.2	15.3	22.9	13.60	-6,668.5	-1,171.8	6,698.6	6,676.8	21.72	308.392		
7,700.0	7,505.1	7,050.0	6,956.2	15.5	22.9	17.10	-6,668.5	-1,171.8	6,653.9	6,633.4	20.43	325.614		
7,750.0	7,518.9	7,050.0	6,956.2	15.7	22.9	22.16	-6,668.5	-1,171.8	6,607.6	6,587.9	19.70	335.367		
7,800.0	7,528.5	7,050.0	6,956.2	15.9	22.9	30.04	-6,668.5	-1,171.8	6,560.0	6,540.0	20.00	327.964		
7,850.0	7,533.9	7,050.0	6,956.2	16.2	22.9	43.28	-6,668.5	-1,171.8	6,511.4	6,489.3	22.11	294.567		
7,886.2	7,535.0	7,050.0	6,956.2	16.4	22.9	58.52	-6,668.5	-1,171.8	6,475.9	6,450.9	24.98	259.200		
7,900.0	7,535.0	7,050.0	6,956.2	16.5	22.9	58.52	-6,668.5	-1,171.8	6,462.3	6,437.2	25.07	257.744		
8,000.0	7,535.0	7,050.0	6,956.2	17.2	22.9	58.52	-6,668.5	-1,171.8	6,363.9	6,338.1	25.79	246.796		
8,100.0	7,535.0	7,069.3	6,975.4	18.1	22.9	59.38	-6,670.1	-1,172.4	6,265.3	6,238.5	26.82	233.627		
8,200.0	7,535.0	7,071.3	6,977.4	19.1	22.9	59.47	-6,670.3	-1,172.5	6,167.0	6,139.2	27.78	222.019		
8,300.0	7,535.0	7,073.3	6,979.5	20.2	22.9	59.56	-6,670.4	-1,172.6	6,068.6	6,039.8	28.82	210.562		
8,400.0	7,535.0	7,075.4	6,981.5	21.4	22.9	59.66	-6,670.6	-1,172.7	5,970.4	5,940.4	29.94	199.430		
8,500.0	7,535.0	7,077.5	6,983.6	22.7	22.9	59.75	-6,670.8	-1,172.9	5,872.2	5,841.0	31.11	188.733		
8,600.0	7,535.0	7,079.6	6,985.7	24.0	22.9	59.85	-6,671.0	-1,173.0	5,774.0	5,741.7	32.34	178.538		
8,700.0	7,535.0	7,100.0	7,005.9	25.4	22.9	60.80	-6,672.8	-1,174.7	5,676.0	5,642.2	33.87	167.602		
8,800.0	7,535.0	7,100.0	7,005.9	26.9	22.9	60.80	-6,672.8	-1,174.7	5,578.0	5,542.8	35.15	158.678		
8,900.0	7,535.0	7,100.0	7,005.9	28.3	22.9	60.80	-6,672.8	-1,174.7	5,480.0	5,443.5	36.47	150.268		
9,000.0	7,535.0	7,100.0	7,005.9	29.8	22.9	60.80	-6,672.8	-1,174.7	5,382.1	5,344.2	37.81	142.355		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1C-34H-H266 - Hz - Plan #1													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	7,535.0	7,100.0	7,005.9	31.3	22.9	60.80	-6,672.8	-1,174.7	5,284.2	5,245.0	39.17	134.914		
9,200.0	7,535.0	7,100.0	7,005.9	32.9	22.9	60.80	-6,672.8	-1,174.7	5,186.5	5,145.9	40.54	127.919		
9,300.0	7,535.0	7,100.0	7,005.9	34.4	22.9	60.80	-6,672.8	-1,174.7	5,088.8	5,046.9	41.94	121.341		
9,400.0	7,535.0	7,100.0	7,005.9	36.0	22.9	60.80	-6,672.8	-1,174.7	4,991.2	4,947.9	43.34	115.153		
9,500.0	7,535.0	7,100.0	7,005.9	37.6	22.9	60.80	-6,672.8	-1,174.7	4,893.7	4,849.0	44.76	109.329		
9,600.0	7,535.0	7,100.0	7,005.9	39.2	22.9	60.80	-6,672.8	-1,174.7	4,796.4	4,750.2	46.19	103.841		
9,700.0	7,535.0	7,100.0	7,005.9	40.9	22.9	60.80	-6,672.8	-1,174.7	4,699.1	4,651.5	47.63	98.666		
9,800.0	7,535.0	7,100.0	7,005.9	42.5	22.9	60.80	-6,672.8	-1,174.7	4,602.0	4,552.9	49.07	93.782		
9,900.0	7,535.0	7,100.0	7,005.9	44.1	22.9	60.80	-6,672.8	-1,174.7	4,504.9	4,454.4	50.52	89.167		
10,000.0	7,535.0	7,100.0	7,005.9	45.8	22.9	60.80	-6,672.8	-1,174.7	4,408.0	4,356.1	51.98	84.802		
10,100.0	7,535.0	7,100.0	7,005.9	47.4	22.9	60.80	-6,672.8	-1,174.7	4,311.3	4,257.9	53.44	80.670		
10,200.0	7,535.0	7,100.0	7,005.9	49.1	22.9	60.80	-6,672.8	-1,174.7	4,214.7	4,159.8	54.91	76.754		
10,300.0	7,535.0	7,119.7	7,025.4	50.8	22.9	61.75	-6,674.8	-1,177.0	4,118.1	4,061.2	56.88	72.404		
10,400.0	7,535.0	7,122.3	7,028.0	52.5	22.9	61.88	-6,675.0	-1,177.3	4,021.8	3,963.4	58.43	68.825		
10,500.0	7,535.0	7,125.0	7,030.6	54.1	22.9	62.01	-6,675.3	-1,177.7	3,925.7	3,865.7	60.00	65.427		
10,600.0	7,535.0	7,127.7	7,033.3	55.8	22.9	62.14	-6,675.6	-1,178.1	3,829.7	3,768.1	61.57	62.197		
10,700.0	7,535.0	7,130.4	7,035.9	57.5	22.9	62.28	-6,675.9	-1,178.5	3,734.0	3,670.8	63.16	59.123		
10,800.0	7,535.0	7,150.0	7,055.1	59.2	22.8	63.26	-6,677.9	-1,181.8	3,638.6	3,573.4	65.22	55.789		
10,900.0	7,535.0	7,150.0	7,055.1	60.9	22.8	63.26	-6,677.9	-1,181.8	3,543.3	3,476.5	66.75	53.085		
11,000.0	7,535.0	7,150.0	7,055.1	62.6	22.8	63.26	-6,677.9	-1,181.8	3,448.2	3,380.0	68.28	50.504		
11,100.0	7,535.0	7,150.0	7,055.1	64.3	22.8	63.26	-6,677.9	-1,181.8	3,353.5	3,283.7	69.81	48.039		
11,200.0	7,535.0	7,150.0	7,055.1	66.0	22.8	63.26	-6,677.9	-1,181.8	3,259.0	3,187.7	71.34	45.682		
11,300.0	7,535.0	7,150.0	7,055.1	67.7	22.8	63.26	-6,677.9	-1,181.8	3,164.9	3,092.1	72.88	43.429		
11,400.0	7,535.0	7,150.0	7,055.1	69.4	22.8	63.26	-6,677.9	-1,181.8	3,071.2	2,996.8	74.41	41.272		
11,496.2	7,535.0	7,150.0	7,055.1	71.1	22.8	63.26	-6,677.9	-1,181.8	2,981.4	2,905.5	75.89	39.284		
11,500.0	7,535.0	7,150.0	7,055.1	71.2	22.8	63.26	-6,677.9	-1,181.8	2,977.9	2,901.9	75.95	39.207		
11,600.0	7,535.0	7,150.0	7,055.1	72.9	22.8	63.26	-6,677.9	-1,181.8	2,885.0	2,807.5	77.49	37.229		
11,700.0	7,535.0	7,150.0	7,055.1	74.6	22.8	63.26	-6,677.9	-1,181.8	2,792.6	2,713.6	79.03	35.334		
11,800.0	7,535.0	7,150.0	7,055.1	76.3	22.8	63.26	-6,677.9	-1,181.8	2,700.8	2,620.2	80.58	33.518		
11,900.0	7,535.0	7,150.0	7,055.1	78.0	22.8	63.26	-6,677.9	-1,181.8	2,609.5	2,527.4	82.12	31.777		
12,000.0	7,535.0	7,169.0	7,073.6	79.7	22.8	64.22	-6,680.0	-1,185.6	2,518.7	2,434.4	84.35	29.859		
12,100.0	7,535.0	7,172.2	7,076.8	81.5	22.8	64.39	-6,680.4	-1,186.3	2,428.8	2,342.7	86.03	28.231		
12,200.0	7,535.0	7,175.5	7,079.9	83.2	22.8	64.56	-6,680.8	-1,187.0	2,339.6	2,251.9	87.71	26.673		
12,296.2	7,535.0	7,178.7	7,083.0	84.9	22.8	64.72	-6,681.2	-1,187.7	2,254.8	2,165.4	89.34	25.238		
12,300.0	7,535.0	7,178.8	7,083.2	84.9	22.8	64.67	-6,681.2	-1,187.8	2,251.4	2,162.0	89.36	25.194		
12,400.0	7,535.0	7,182.3	7,086.5	86.6	22.8	63.23	-6,681.6	-1,188.6	2,163.3	2,073.5	89.83	24.082		
12,492.9	7,535.0	7,200.0	7,103.5	88.3	22.7	62.61	-6,683.7	-1,193.1	2,081.3	1,990.5	90.72	22.941		
12,500.0	7,535.0	7,200.0	7,103.5	88.4	22.7	62.61	-6,683.7	-1,193.1	2,075.0	1,984.1	90.83	22.845		
12,600.0	7,535.0	7,200.0	7,103.5	90.1	22.7	62.61	-6,683.7	-1,193.1	1,986.8	1,894.4	92.37	21.509		
12,700.0	7,535.0	7,200.0	7,103.5	91.9	22.7	62.61	-6,683.7	-1,193.1	1,899.8	1,805.9	93.92	20.229		
12,800.0	7,535.0	7,200.0	7,103.5	93.6	22.7	62.61	-6,683.7	-1,193.1	1,814.1	1,718.6	95.46	19.004		
12,900.0	7,535.0	7,200.0	7,103.5	95.3	22.7	62.61	-6,683.7	-1,193.1	1,730.0	1,633.0	97.00	17.834		
13,000.0	7,535.0	7,200.0	7,103.5	97.1	22.7	62.61	-6,683.7	-1,193.1	1,647.6	1,549.1	98.55	16.719		
13,100.0	7,535.0	7,200.0	7,103.5	98.8	22.7	62.61	-6,683.7	-1,193.1	1,567.3	1,467.2	100.09	15.658		
13,200.0	7,535.0	7,200.0	7,103.5	100.5	22.7	62.61	-6,683.7	-1,193.1	1,489.4	1,387.8	101.64	14.654		
13,300.0	7,535.0	7,220.6	7,123.1	102.3	22.7	63.81	-6,686.2	-1,198.9	1,413.8	1,309.5	104.27	13.559		
13,400.0	7,535.0	7,225.4	7,127.6	104.0	22.6	64.09	-6,686.8	-1,200.4	1,341.7	1,235.6	106.08	12.648		
13,500.0	7,535.0	7,230.2	7,132.1	105.8	22.6	64.38	-6,687.5	-1,201.9	1,273.2	1,165.3	107.90	11.800		
13,600.0	7,535.0	7,250.0	7,150.6	107.5	22.6	65.55	-6,690.1	-1,208.5	1,209.4	1,098.9	110.51	10.944		
13,700.0	7,535.0	7,250.0	7,150.6	109.3	22.6	65.55	-6,690.1	-1,208.5	1,150.3	1,038.2	112.10	10.261		
13,800.0	7,535.0	7,250.0	7,150.6	111.0	22.6	65.55	-6,690.1	-1,208.5	1,097.1	983.4	113.69	9.650		
13,900.0	7,535.0	7,250.0	7,150.6	112.7	22.6	65.55	-6,690.1	-1,208.5	1,050.7	935.4	115.27	9.115		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1C-34H-H266 - Hz - Plan #1													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		
14,000.0	7,535.0	7,250.0	7,150.6	114.5	22.6	65.55	-6,690.1	-1,208.5	1,012.2	895.3	116.86	8.661		
14,100.0	7,535.0	7,250.0	7,150.6	116.2	22.6	65.55	-6,690.1	-1,208.5	982.3	863.8	118.45	8.293		
14,200.0	7,535.0	7,266.9	7,166.1	118.0	22.5	66.56	-6,692.4	-1,214.6	961.5	840.6	120.97	7.948		
14,300.0	7,535.0	7,272.6	7,171.3	119.7	22.5	66.89	-6,693.1	-1,216.8	951.0	828.1	122.89	7.739		
14,351.6	7,535.0	7,275.5	7,174.1	120.6	22.4	67.07	-6,693.6	-1,218.0	949.6	825.7	123.88	7.666	CC, ES	
14,400.0	7,535.0	7,278.4	7,176.6	121.5	22.4	67.24	-6,694.0	-1,219.1	950.8	826.0	124.81	7.618		
14,500.0	7,535.0	7,284.3	7,182.0	123.2	22.4	67.60	-6,694.8	-1,221.4	961.0	834.3	126.75	7.582	SF	
14,600.0	7,535.0	7,300.0	7,196.1	124.9	22.3	68.53	-6,697.0	-1,228.0	981.4	852.2	129.21	7.596		
14,672.4	7,535.0	7,300.0	7,196.1	126.2	22.3	68.53	-6,697.0	-1,228.0	1,001.9	871.5	130.38	7.684		
14,672.9	7,535.0	7,300.0	7,196.1	126.2	22.3	68.53	-6,697.0	-1,228.0	1,002.0	871.7	130.39	7.685		



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1D-34H-H266 - Hz - Plan #1														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	10.0	10.0	0.0	0.0	-160.82	-6,385.7	-2,221.2	6,761.0						
100.0	100.0	110.0	110.0	0.2	0.1	-160.82	-6,385.7	-2,221.2	6,761.0	6,760.7	0.30	N/A			
163.0	163.0	173.0	173.0	0.3	0.3	-160.82	-6,385.7	-2,221.2	6,761.0	6,760.5	0.52	N/A			
200.0	200.0	200.0	200.0	0.3	0.3	-160.82	-6,385.7	-2,221.2	6,761.0	6,760.4	0.63	N/A			
300.0	300.0	269.0	269.0	0.5	0.4	-160.82	-6,386.0	-2,221.0	6,761.3	6,760.4	0.93	7,290.973			
400.0	400.0	331.8	331.8	0.7	0.5	-160.83	-6,386.9	-2,220.2	6,762.2	6,761.0	1.21	5,574.525			
500.0	500.0	400.0	400.0	0.8	0.7	-160.85	-6,388.4	-2,219.0	6,763.7	6,762.1	1.51	4,479.433			
600.0	600.0	457.1	457.1	1.0	0.8	-160.86	-6,390.1	-2,217.5	6,765.6	6,763.8	1.79	3,778.167			
700.0	700.0	519.7	519.6	1.2	0.9	-160.89	-6,392.5	-2,215.4	6,768.2	6,766.1	2.08	3,247.906			
800.0	800.0	600.0	599.7	1.4	1.0	-160.92	-6,396.3	-2,212.1	6,771.3	6,768.9	2.42	2,802.513			
900.0	900.0	644.7	644.3	1.5	1.1	-160.95	-6,398.8	-2,210.0	6,774.9	6,772.2	2.68	2,524.095			
1,000.0	1,000.0	700.0	699.4	1.7	1.3	-160.98	-6,402.3	-2,207.0	6,779.1	6,776.1	2.97	2,278.919			
1,100.0	1,100.0	769.2	768.3	1.9	1.4	-161.03	-6,407.2	-2,202.8	6,783.9	6,780.6	3.30	2,052.644			
1,200.0	1,200.0	831.3	830.0	2.1	1.6	-108.79	-6,412.1	-2,198.6	6,789.5	6,785.9	3.61	1,883.041			
1,300.0	1,300.0	900.0	898.3	2.2	1.7	-108.80	-6,418.1	-2,193.4	6,796.2	6,792.2	3.94	1,723.775			
1,400.0	1,399.9	954.3	952.1	2.4	1.9	-108.79	-6,423.3	-2,188.9	6,804.0	6,799.8	4.26	1,598.029			
1,500.0	1,499.7	1,000.0	997.4	2.6	2.0	-108.77	-6,428.0	-2,184.9	6,813.1	6,808.5	4.56	1,495.026			
1,600.0	1,599.4	1,075.6	1,072.2	2.8	2.3	-108.80	-6,436.4	-2,177.7	6,823.2	6,818.2	4.95	1,377.564			
1,619.7	1,619.0	1,100.0	1,096.3	2.8	2.3	-108.83	-6,439.2	-2,175.3	6,825.3	6,820.3	5.06	1,349.478			
1,700.0	1,699.0	1,135.5	1,131.4	3.0	2.4	-108.89	-6,443.5	-2,171.6	6,834.3	6,828.9	5.32	1,284.723			
1,800.0	1,798.5	1,200.0	1,194.9	3.2	2.6	-109.02	-6,451.8	-2,164.5	6,846.0	6,840.3	5.71	1,199.257			
1,900.0	1,898.1	1,254.4	1,248.4	3.4	2.8	-109.13	-6,459.1	-2,158.2	6,858.3	6,852.2	6.08	1,127.569			
2,000.0	1,997.7	1,300.0	1,293.3	3.6	3.0	-109.22	-6,465.6	-2,152.7	6,871.2	6,864.8	6.43	1,068.250			
2,100.0	2,097.3	1,371.9	1,363.7	3.9	3.3	-109.37	-6,476.3	-2,143.5	6,884.7	6,877.9	6.88	1,000.630			
2,200.0	2,196.9	1,430.1	1,420.7	4.1	3.5	-109.50	-6,485.5	-2,135.6	6,898.9	6,891.6	7.29	946.098			
2,300.0	2,296.5	1,500.0	1,488.9	4.3	3.8	-109.66	-6,497.2	-2,125.6	6,913.6	6,905.9	7.75	891.844			
2,400.0	2,396.1	1,545.4	1,533.1	4.5	4.0	-109.76	-6,505.0	-2,118.8	6,929.0	6,920.9	8.14	851.501			
2,500.0	2,495.7	1,600.0	1,586.1	4.7	4.2	-109.89	-6,514.9	-2,110.4	6,945.0	6,936.5	8.56	811.520			
2,600.0	2,595.3	1,659.2	1,643.5	5.0	4.5	-110.04	-6,526.0	-2,100.9	6,961.6	6,952.6	9.01	772.686			
2,700.0	2,694.8	1,700.0	1,682.9	5.2	4.7	-110.14	-6,533.9	-2,094.1	6,978.9	6,969.5	9.39	743.262			
2,800.0	2,794.4	1,771.4	1,751.7	5.4	5.0	-110.32	-6,548.2	-2,081.8	6,996.8	6,986.9	9.91	706.266			
2,900.0	2,894.0	1,842.8	1,820.4	5.6	5.4	-110.51	-6,563.1	-2,069.0	7,015.3	7,004.9	10.43	672.900			
3,000.0	2,993.6	1,936.1	1,910.1	5.9	5.9	-110.75	-6,582.7	-2,052.2	7,034.0	7,023.0	11.04	637.321			
3,100.0	3,093.2	2,029.4	1,999.7	6.1	6.3	-110.99	-6,602.2	-2,035.4	7,052.8	7,041.2	11.65	605.431			
3,200.0	3,192.8	2,122.6	2,089.4	6.3	6.8	-111.23	-6,621.8	-2,018.7	7,071.8	7,059.5	12.26	576.713			
3,300.0	3,292.4	2,215.9	2,179.0	6.5	7.3	-111.47	-6,641.3	-2,001.9	7,090.9	7,078.0	12.88	550.739			
3,400.0	3,392.0	2,309.1	2,268.6	6.8	7.7	-111.71	-6,660.9	-1,985.1	7,110.2	7,096.7	13.49	527.149			
3,500.0	3,491.6	2,402.4	2,358.3	7.0	8.2	-111.95	-6,680.4	-1,968.3	7,129.5	7,115.4	14.10	505.641			
3,600.0	3,591.1	2,495.7	2,447.9	7.2	8.7	-112.19	-6,700.0	-1,951.6	7,149.0	7,134.3	14.71	485.959			
3,700.0	3,690.7	2,588.9	2,537.5	7.5	9.2	-112.42	-6,719.5	-1,934.8	7,168.7	7,153.3	15.32	467.888			
3,800.0	3,790.3	2,682.2	2,627.2	7.7	9.7	-112.66	-6,739.1	-1,918.0	7,188.4	7,172.5	15.93	451.244			
3,900.0	3,889.9	2,775.5	2,716.8	7.9	10.1	-112.89	-6,758.6	-1,901.2	7,208.3	7,191.8	16.54	435.869			
4,000.0	3,989.5	2,868.7	2,806.4	8.2	10.6	-113.12	-6,778.2	-1,884.5	7,228.3	7,211.2	17.14	421.628			
4,100.0	4,089.1	2,962.0	2,896.1	8.4	11.1	-113.35	-6,797.7	-1,867.7	7,248.5	7,230.7	17.75	408.402			
4,200.0	4,188.7	3,055.2	2,985.7	8.6	11.6	-113.58	-6,817.3	-1,850.9	7,268.7	7,250.4	18.35	396.089			
4,300.0	4,288.3	3,148.5	3,075.3	8.9	12.1	-113.81	-6,836.8	-1,834.1	7,289.1	7,270.1	18.95	384.601			
4,400.0	4,387.9	3,241.8	3,165.0	9.1	12.5	-114.03	-6,856.4	-1,817.3	7,309.6	7,290.0	19.55	373.859			
4,500.0	4,487.4	3,335.0	3,254.6	9.3	13.0	-114.26	-6,875.9	-1,800.6	7,330.2	7,310.1	20.15	363.794			
4,600.0	4,587.0	3,428.3	3,344.2	9.6	13.5	-114.48	-6,895.5	-1,783.8	7,351.0	7,330.2	20.75	354.347			
4,700.0	4,686.6	3,521.6	3,433.9	9.8	14.0	-114.71	-6,915.0	-1,767.0	7,371.8	7,350.5	21.34	345.463			
4,800.0	4,786.2	3,614.8	3,523.5	10.0	14.5	-114.93	-6,934.6	-1,750.2	7,392.8	7,370.9	21.93	337.096			
4,900.0	4,885.8	3,708.1	3,613.1	10.3	14.9	-115.15	-6,954.1	-1,733.5	7,413.9	7,391.4	22.52	329.201			

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1D-34H-H266 - Hz - Plan #1													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		
5,000.0	4,985.4	3,801.4	3,702.8	10.5	15.4	-115.37	-6,973.7	-1,716.7	7,435.1	7,412.0	23.11	321.742		
5,100.0	5,085.0	3,894.6	3,792.4	10.7	15.9	-115.59	-6,993.2	-1,699.9	7,456.4	7,432.7	23.69	314.684		
5,200.0	5,184.6	3,987.9	3,882.0	11.0	16.4	-115.81	-7,012.8	-1,683.1	7,477.9	7,453.6	24.28	307.997		
5,300.0	5,284.2	4,081.1	3,971.7	11.2	16.9	-116.02	-7,032.3	-1,666.4	7,499.4	7,474.5	24.86	301.653		
5,400.0	5,383.7	4,174.4	4,061.3	11.4	17.4	-116.24	-7,051.9	-1,649.6	7,521.1	7,495.6	25.44	295.628		
5,500.0	5,483.3	4,267.7	4,150.9	11.7	17.8	-116.45	-7,071.5	-1,632.8	7,542.8	7,516.8	26.02	289.898		
5,600.0	5,582.9	4,360.9	4,240.6	11.9	18.3	-116.67	-7,091.0	-1,616.0	7,564.7	7,538.1	26.59	284.443		
5,700.0	5,682.5	4,454.2	4,330.2	12.1	18.8	-116.88	-7,110.6	-1,599.3	7,586.7	7,559.5	27.17	279.244		
5,800.0	5,782.1	4,547.5	4,419.8	12.4	19.3	-117.09	-7,130.1	-1,582.5	7,608.8	7,581.1	27.74	274.284		
5,900.0	5,881.7	4,640.7	4,509.5	12.6	19.8	-117.30	-7,149.7	-1,565.7	7,631.0	7,602.7	28.31	269.549		
6,000.0	5,981.3	4,734.0	4,599.1	12.8	20.3	-117.51	-7,169.2	-1,548.9	7,653.3	7,624.4	28.88	265.023		
6,100.0	6,080.9	4,827.2	4,688.8	13.1	20.7	-117.72	-7,188.8	-1,532.2	7,675.7	7,646.3	29.44	260.693		
6,200.0	6,180.5	4,920.5	4,778.4	13.3	21.2	-117.92	-7,208.3	-1,515.4	7,698.2	7,668.2	30.01	256.547		
6,300.0	6,280.0	5,013.8	4,868.0	13.5	21.7	-118.13	-7,227.9	-1,498.6	7,720.9	7,690.3	30.57	252.575		
6,400.0	6,379.6	5,107.0	4,957.7	13.8	22.2	-118.33	-7,247.4	-1,481.8	7,743.6	7,712.4	31.13	248.766		
6,500.0	6,479.2	5,200.3	5,047.3	14.0	22.7	-118.54	-7,267.0	-1,465.1	7,766.4	7,734.7	31.69	245.110		
6,600.0	6,578.8	5,293.6	5,136.9	14.2	23.2	-118.74	-7,286.5	-1,448.3	7,789.3	7,757.1	32.24	241.600		
6,700.0	6,678.4	5,386.8	5,226.6	14.5	23.6	-118.94	-7,306.1	-1,431.5	7,812.3	7,779.5	32.79	238.226		
6,800.0	6,778.0	5,480.1	5,316.2	14.7	24.1	-119.14	-7,325.6	-1,414.7	7,835.5	7,802.1	33.34	234.982		
6,900.0	6,877.6	5,573.4	5,405.8	14.9	24.6	-119.34	-7,345.2	-1,397.9	7,858.7	7,824.8	33.89	231.860		
6,953.0	6,930.4	5,622.8	5,453.4	15.1	24.9	-119.44	-7,355.5	-1,389.1	7,871.0	7,836.8	34.18	230.252		
7,000.0	6,977.2	5,667.1	5,495.9	15.1	25.1	-61.14	-7,364.8	-1,381.1	7,880.1	7,845.8	34.33	229.527		
7,050.0	7,027.0	5,715.0	5,542.0	15.2	25.3	-22.54	-7,374.9	-1,372.5	7,885.7	7,851.4	34.32	229.790		
7,100.0	7,076.2	5,763.4	5,588.5	15.2	25.6	-9.98	-7,385.0	-1,363.8	7,887.1	7,853.0	34.12	231.147		
7,150.0	7,124.6	5,812.0	5,635.2	15.3	25.8	-4.42	-7,395.2	-1,355.0	7,884.1	7,850.4	33.74	233.642		
7,200.0	7,171.8	5,860.2	5,681.5	15.2	26.1	-1.31	-7,405.3	-1,346.3	7,876.9	7,843.7	33.19	237.338		
7,250.0	7,217.4	5,907.8	5,727.3	15.2	26.3	0.73	-7,415.3	-1,337.8	7,865.5	7,833.0	32.46	242.314		
7,300.0	7,261.1	5,954.5	5,772.1	15.2	26.6	2.24	-7,425.1	-1,329.4	7,849.9	7,818.4	31.57	248.663		
7,350.0	7,302.5	5,999.8	5,815.7	15.2	26.8	3.48	-7,434.6	-1,321.2	7,830.4	7,799.9	30.53	256.489		
7,400.0	7,341.3	6,043.4	5,857.6	15.1	27.1	4.59	-7,443.7	-1,313.4	7,807.0	7,777.6	29.36	265.893		
7,450.0	7,377.2	6,084.9	5,897.5	15.1	27.3	5.67	-7,452.4	-1,305.9	7,779.8	7,751.7	28.09	276.945		
7,500.0	7,410.0	6,124.2	5,935.2	15.1	27.5	6.80	-7,460.6	-1,298.9	7,749.2	7,722.5	26.75	289.637		
7,550.0	7,439.4	6,160.8	5,970.4	15.2	27.7	8.07	-7,468.3	-1,292.3	7,715.4	7,690.0	25.40	303.782		
7,600.0	7,465.2	6,194.4	6,002.7	15.2	27.8	9.57	-7,475.4	-1,286.2	7,678.5	7,654.4	24.08	318.847		
7,650.0	7,487.1	6,224.9	6,032.1	15.3	28.0	11.42	-7,481.8	-1,280.7	7,638.9	7,616.0	22.90	333.647		
7,700.0	7,505.1	6,252.0	6,058.1	15.5	28.1	13.82	-7,487.4	-1,275.9	7,596.9	7,575.0	21.96	345.879		
7,750.0	7,518.9	6,275.5	6,080.7	15.7	28.3	17.10	-7,492.4	-1,271.6	7,552.8	7,531.3	21.49	351.522		
7,800.0	7,528.5	6,295.2	6,099.6	15.9	28.4	21.83	-7,496.5	-1,268.1	7,507.0	7,485.2	21.79	344.486		
7,850.0	7,533.9	6,311.0	6,114.7	16.2	28.4	29.13	-7,499.8	-1,265.3	7,459.7	7,436.2	23.46	317.932		
7,886.2	7,535.0	6,319.8	6,123.3	16.4	28.5	37.20	-7,501.6	-1,263.7	7,424.8	7,398.7	26.05	285.064		
7,900.0	7,535.0	6,322.8	6,126.1	16.5	28.5	37.25	-7,502.3	-1,263.1	7,411.4	7,385.2	26.14	283.557		
8,000.0	7,535.0	6,344.4	6,146.8	17.2	28.6	37.56	-7,506.8	-1,259.3	7,314.3	7,287.5	26.85	272.462		
8,100.0	7,535.0	6,365.9	6,167.5	18.1	28.7	37.88	-7,511.3	-1,255.4	7,217.3	7,189.6	27.63	261.177		
8,200.0	7,535.0	6,387.5	6,188.3	19.1	28.8	38.20	-7,515.8	-1,251.5	7,120.2	7,091.8	28.50	249.876		
8,300.0	7,535.0	6,409.0	6,209.0	20.2	28.9	38.53	-7,520.3	-1,247.6	7,023.2	6,993.8	29.42	238.699		
8,400.0	7,535.0	6,430.5	6,229.7	21.4	29.1	38.87	-7,524.9	-1,243.8	6,926.3	6,895.8	30.41	227.750		
8,500.0	7,535.0	6,452.1	6,250.4	22.7	29.2	39.22	-7,529.4	-1,239.9	6,829.3	6,797.8	31.46	217.108		
8,600.0	7,535.0	6,473.6	6,271.1	24.0	29.3	39.57	-7,533.9	-1,236.0	6,732.3	6,699.8	32.55	206.826		
8,700.0	7,535.0	6,495.2	6,291.8	25.4	29.4	39.93	-7,538.4	-1,232.1	6,635.4	6,601.7	33.69	196.936		
8,800.0	7,535.0	6,516.7	6,312.5	26.9	29.5	40.30	-7,542.9	-1,228.3	6,538.5	6,503.6	34.88	187.458		
8,900.0	7,535.0	6,538.3	6,333.2	28.3	29.6	40.68	-7,547.4	-1,224.4	6,441.6	6,405.5	36.11	178.398		
9,000.0	7,535.0	6,559.8	6,353.9	29.8	29.7	41.07	-7,552.0	-1,220.5	6,344.7	6,307.4	37.38	169.755		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 1D-34H-H266 - Hz - Plan #1													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	7,535.0	6,581.4	6,374.6	31.3	29.8	41.46	-7,556.5	-1,216.6	6,247.9	6,209.2	38.68	161.521		
9,200.0	7,535.0	6,602.9	6,395.3	32.9	30.0	41.87	-7,561.0	-1,212.7	6,151.1	6,111.1	40.02	153.685		
9,300.0	7,535.0	6,624.5	6,416.1	34.4	30.1	42.28	-7,565.5	-1,208.9	6,054.3	6,012.9	41.40	146.233		
9,400.0	7,535.0	6,646.0	6,436.8	36.0	30.2	42.71	-7,570.0	-1,205.0	5,957.6	5,914.7	42.81	139.148		
9,500.0	7,535.0	6,667.6	6,457.5	37.6	30.3	43.14	-7,574.5	-1,201.1	5,860.8	5,816.6	44.26	132.415		
9,600.0	7,535.0	6,689.1	6,478.2	39.2	30.4	43.59	-7,579.1	-1,197.2	5,764.1	5,718.4	45.74	126.016		
9,700.0	7,535.0	6,710.7	6,498.9	40.9	30.5	44.04	-7,583.6	-1,193.4	5,667.5	5,620.2	47.25	119.934		
9,800.0	7,535.0	6,732.2	6,519.6	42.5	30.6	44.51	-7,588.1	-1,189.5	5,570.8	5,522.0	48.80	114.153		
9,900.0	7,535.0	6,753.8	6,540.3	44.1	30.7	44.99	-7,592.6	-1,185.6	5,474.2	5,423.9	50.38	108.657		
10,000.0	7,535.0	6,775.3	6,561.0	45.8	30.9	45.48	-7,597.1	-1,181.7	5,377.7	5,325.7	51.99	103.430		
10,100.0	7,535.0	6,796.9	6,581.7	47.4	31.0	45.98	-7,601.6	-1,177.9	5,281.2	5,227.5	53.64	98.458		
10,200.0	7,535.0	6,818.4	6,602.4	49.1	31.1	46.50	-7,606.2	-1,174.0	5,184.7	5,129.4	55.32	93.726		
10,300.0	7,535.0	6,840.0	6,623.2	50.8	31.2	47.03	-7,610.7	-1,170.1	5,088.3	5,031.2	57.03	89.221		
10,400.0	7,535.0	6,858.8	6,641.3	52.5	31.3	47.50	-7,614.6	-1,166.7	4,991.9	4,933.2	58.71	85.025		
10,500.0	7,535.0	6,858.8	6,641.3	54.1	31.3	47.50	-7,614.6	-1,166.7	4,895.6	4,835.7	59.96	81.649		
10,600.0	7,535.0	6,873.3	6,655.2	55.8	31.3	47.87	-7,617.7	-1,164.3	4,799.4	4,737.9	61.58	77.941		
10,700.0	7,535.0	6,880.2	6,661.8	57.5	31.4	48.06	-7,619.2	-1,163.3	4,703.4	4,640.4	63.02	74.629		
10,800.0	7,535.0	6,900.0	6,681.1	59.2	31.5	48.62	-7,623.4	-1,160.8	4,607.6	4,542.7	64.85	71.050		
10,900.0	7,535.0	6,900.0	6,681.1	60.9	31.5	48.62	-7,623.4	-1,160.8	4,511.7	4,445.6	66.13	68.224		
11,000.0	7,535.0	6,900.0	6,681.1	62.6	31.5	48.62	-7,623.4	-1,160.8	4,416.1	4,348.7	67.42	65.506		
11,100.0	7,535.0	6,900.0	6,681.1	64.3	31.5	48.62	-7,623.4	-1,160.8	4,320.7	4,252.0	68.70	62.890		
11,200.0	7,535.0	6,900.0	6,681.1	66.0	31.5	48.62	-7,623.4	-1,160.8	4,225.5	4,155.5	69.99	60.373		
11,300.0	7,535.0	6,922.8	6,703.2	67.7	31.6	49.30	-7,628.5	-1,158.7	4,130.3	4,058.3	72.02	57.349		
11,400.0	7,535.0	6,930.1	6,710.3	69.4	31.6	49.53	-7,630.1	-1,158.3	4,035.4	3,961.9	73.58	54.847		
11,496.2	7,535.0	6,950.0	6,729.7	71.1	31.7	50.17	-7,634.6	-1,157.5	3,944.4	3,868.9	75.54	52.213		
11,500.0	7,535.0	6,950.0	6,729.7	71.2	31.7	50.17	-7,634.6	-1,157.5	3,940.8	3,865.2	75.60	52.130		
11,600.0	7,535.0	6,950.0	6,729.7	72.9	31.7	50.17	-7,634.6	-1,157.5	3,846.3	3,769.4	76.92	50.004		
11,700.0	7,535.0	6,950.0	6,729.7	74.6	31.7	50.17	-7,634.6	-1,157.5	3,752.1	3,673.9	78.25	47.952		
11,800.0	7,535.0	6,950.0	6,729.7	76.3	31.7	50.17	-7,634.6	-1,157.5	3,658.2	3,578.6	79.57	45.972		
11,900.0	7,535.0	6,967.4	6,746.6	78.0	31.7	50.76	-7,638.5	-1,157.4	3,564.5	3,482.9	81.59	43.687		
12,000.0	7,535.0	6,975.0	6,754.0	79.7	31.7	51.03	-7,640.3	-1,157.5	3,471.1	3,387.9	83.24	41.698		
12,100.0	7,535.0	6,982.6	6,761.5	81.5	31.7	51.30	-7,642.0	-1,157.7	3,378.1	3,293.2	84.91	39.782		
12,200.0	7,535.0	7,000.0	6,778.3	83.2	31.8	51.94	-7,646.1	-1,158.5	3,285.4	3,198.4	87.02	37.753		
12,296.2	7,535.0	7,000.0	6,778.3	84.9	31.8	51.94	-7,646.1	-1,158.5	3,196.6	3,108.3	88.34	36.186		
12,300.0	7,535.0	7,000.0	6,778.3	84.9	31.8	51.82	-7,646.1	-1,158.5	3,193.1	3,104.8	88.26	36.180		
12,400.0	7,535.0	7,000.0	6,778.3	86.6	31.8	48.73	-7,646.1	-1,158.5	3,100.7	3,015.0	85.70	36.179		
12,492.9	7,535.0	7,000.0	6,778.3	88.3	31.8	45.54	-7,646.1	-1,158.5	3,014.3	2,931.7	82.59	36.496		
12,500.0	7,535.0	7,000.0	6,778.3	88.4	31.8	45.54	-7,646.1	-1,158.5	3,007.7	2,925.0	82.68	36.377		
12,600.0	7,535.0	7,021.8	6,799.4	90.1	31.8	46.40	-7,651.2	-1,160.4	2,914.6	2,829.4	85.11	34.246		
12,700.0	7,535.0	7,029.9	6,807.3	91.9	31.9	46.74	-7,653.1	-1,161.3	2,821.9	2,735.1	86.83	32.499		
12,800.0	7,535.0	7,050.0	6,826.6	93.6	31.9	47.59	-7,657.8	-1,163.9	2,729.8	2,640.5	89.28	30.576		
12,900.0	7,535.0	7,050.0	6,826.6	95.3	31.9	47.59	-7,657.8	-1,163.9	2,638.0	2,547.4	90.57	29.128		
13,000.0	7,535.0	7,050.0	6,826.6	97.1	31.9	47.59	-7,657.8	-1,163.9	2,546.8	2,455.0	91.85	27.727		
13,100.0	7,535.0	7,050.0	6,826.6	98.8	31.9	47.59	-7,657.8	-1,163.9	2,456.3	2,363.2	93.14	26.372		
13,200.0	7,535.0	7,072.0	6,847.6	100.5	31.9	48.56	-7,663.1	-1,167.7	2,366.3	2,270.5	95.84	24.690		
13,300.0	7,535.0	7,080.6	6,855.8	102.3	31.9	48.95	-7,665.2	-1,169.4	2,277.2	2,179.5	97.72	23.302		
13,400.0	7,535.0	7,100.0	6,874.1	104.0	32.0	49.86	-7,669.8	-1,173.6	2,188.9	2,088.6	100.36	21.810		
13,500.0	7,535.0	7,100.0	6,874.1	105.8	32.0	49.86	-7,669.8	-1,173.6	2,101.5	1,999.8	101.70	20.664		
13,600.0	7,535.0	7,100.0	6,874.1	107.5	32.0	49.86	-7,669.8	-1,173.6	2,015.2	1,912.2	103.03	19.559		
13,700.0	7,535.0	7,100.0	6,874.1	109.3	32.0	49.86	-7,669.8	-1,173.6	1,930.3	1,825.9	104.37	18.495		
13,800.0	7,535.0	7,124.9	6,897.4	111.0	32.0	51.07	-7,675.9	-1,180.0	1,846.4	1,738.9	107.53	17.171		
13,900.0	7,535.0	7,133.9	6,905.8	112.7	32.0	51.52	-7,678.0	-1,182.6	1,764.2	1,654.7	109.57	16.102		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S34-T2N-R66W (McConahay) - McConahay 1D-34H-H266 - Hz - Plan #1													<b>Offset Site Error:</b> 0.0 ft
<b>Survey Program:</b> 0-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
14,000.0	7,535.0	7,150.0	6,920.6	114.5	32.0	52.34	-7,681.9	-1,187.5	1,683.9	1,571.8	112.16	15.013	
14,100.0	7,535.0	7,150.0	6,920.6	116.2	32.0	52.34	-7,681.9	-1,187.5	1,605.6	1,492.1	113.55	14.141	
14,200.0	7,535.0	7,150.0	6,920.6	118.0	32.0	52.34	-7,681.9	-1,187.5	1,529.8	1,414.9	114.93	13.311	
14,300.0	7,535.0	7,170.5	6,939.2	119.7	32.0	53.41	-7,686.9	-1,194.4	1,456.5	1,338.6	117.94	12.350	
14,400.0	7,535.0	7,179.8	6,947.6	121.5	32.0	53.89	-7,689.2	-1,197.8	1,386.6	1,266.5	120.09	11.546	
14,500.0	7,535.0	7,200.0	6,965.6	123.2	32.0	54.97	-7,694.1	-1,205.6	1,320.4	1,197.3	123.14	10.723	
14,600.0	7,535.0	7,200.0	6,965.6	124.9	32.0	54.97	-7,694.1	-1,205.6	1,258.3	1,133.7	124.57	10.101	
14,672.4	7,535.0	7,200.0	6,965.6	126.2	32.0	54.97	-7,694.1	-1,205.6	1,216.5	1,090.9	125.61	9.685	
14,672.9	7,535.0	7,200.0	6,965.6	126.2	32.0	54.97	-7,694.1	-1,205.6	1,216.2	1,090.6	125.61	9.682 CC, ES, SF	



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - MCCONAHAY 41-34 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error: 0.0 ft			
Survey Program: 200-Gyro															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	-162.36	-5,588.0	-1,777.2	5,863.8							
100.0	100.0	95.0	95.0	0.2	0.0	-162.36	-5,588.0	-1,777.2	5,863.8	5,863.6	0.15	N/A				
200.0	200.0	160.3	160.3	0.3	0.1	-162.36	-5,588.2	-1,777.0	5,864.1	5,863.7	0.38	N/A				
300.0	300.0	245.8	245.8	0.5	0.1	-162.37	-5,589.3	-1,776.2	5,864.9	5,864.3	0.63	9,308.259				
400.0	400.0	341.3	341.2	0.7	0.2	-162.39	-5,590.7	-1,774.1	5,865.7	5,864.8	0.89	6,586.413				
500.0	500.0	418.3	418.2	0.8	0.3	-162.42	-5,592.3	-1,772.0	5,866.8	5,865.7	1.14	5,168.972				
600.0	600.0	506.3	506.1	1.0	0.4	-162.44	-5,594.3	-1,769.9	5,868.2	5,866.8	1.39	4,223.780				
700.0	700.0	600.0	599.8	1.2	0.5	-162.47	-5,596.3	-1,768.0	5,869.7	5,868.1	1.65	3,560.638				
800.0	800.0	674.0	673.8	1.4	0.5	-162.48	-5,598.0	-1,767.1	5,871.5	5,869.7	1.89	3,107.376				
900.0	900.0	816.6	816.4	1.5	0.6	-162.50	-5,601.1	-1,765.8	5,873.4	5,871.2	2.19	2,680.267				
1,000.0	1,000.0	900.0	899.7	1.7	0.7	-162.51	-5,602.4	-1,765.3	5,874.7	5,872.3	2.44	2,408.822				
1,100.0	1,100.0	979.8	979.5	1.9	0.8	-162.52	-5,603.8	-1,765.2	5,876.4	5,873.7	2.68	2,188.741				
1,200.0	1,200.0	1,109.0	1,108.7	2.1	0.9	-110.28	-5,606.4	-1,764.8	5,878.5	5,875.6	2.97	1,981.908				
1,300.0	1,300.0	1,200.0	1,199.7	2.2	1.0	-110.29	-5,608.0	-1,764.4	5,881.0	5,877.8	3.22	1,825.329				
1,400.0	1,399.9	1,284.2	1,283.9	2.4	1.1	-110.30	-5,609.7	-1,763.9	5,884.3	5,880.8	3.47	1,693.470				
1,500.0	1,499.7	1,388.9	1,388.5	2.6	1.2	-110.33	-5,612.0	-1,763.3	5,888.3	5,884.5	3.75	1,569.874				
1,600.0	1,599.4	1,505.2	1,504.8	2.8	1.3	-110.39	-5,614.3	-1,762.4	5,892.7	5,888.6	4.04	1,456.811				
1,619.7	1,619.0	1,522.8	1,522.4	2.8	1.3	-110.40	-5,614.6	-1,762.2	5,893.6	5,889.5	4.10	1,437.852				
1,700.0	1,699.0	1,594.5	1,594.1	3.0	1.3	-110.47	-5,615.9	-1,761.8	5,897.4	5,893.1	4.32	1,364.958				
1,800.0	1,798.5	1,719.7	1,719.3	3.2	1.4	-110.58	-5,618.0	-1,761.0	5,902.0	5,897.4	4.63	1,274.151				
1,900.0	1,898.1	1,800.0	1,799.6	3.4	1.5	-110.66	-5,619.4	-1,760.6	5,906.7	5,901.8	4.91	1,203.597				
2,000.0	1,997.7	1,912.2	1,911.7	3.6	1.6	-110.76	-5,621.4	-1,760.1	5,911.5	5,906.3	5.21	1,133.855				
2,100.0	2,097.3	2,000.0	1,999.5	3.9	1.7	-110.84	-5,622.9	-1,759.7	5,916.3	5,910.8	5.50	1,075.562				
2,200.0	2,196.9	2,119.8	2,119.3	4.1	1.8	-110.94	-5,624.8	-1,759.6	5,921.0	5,915.2	5.82	1,017.911				
2,300.0	2,296.5	2,239.3	2,238.8	4.3	1.9	-111.05	-5,626.1	-1,759.3	5,925.2	5,919.1	6.13	965.889				
2,400.0	2,396.1	2,410.0	2,409.5	4.5	2.0	-111.18	-5,626.8	-1,760.1	5,929.2	5,922.7	6.50	912.742				
2,500.0	2,495.7	2,557.3	2,556.8	4.7	2.2	-111.29	-5,625.5	-1,761.3	5,931.9	5,925.1	6.84	867.465				
2,600.0	2,595.3	2,725.5	2,724.9	5.0	2.3	-111.40	-5,621.9	-1,762.9	5,933.4	5,926.2	7.20	824.161				
2,700.0	2,694.8	2,818.1	2,817.5	5.2	2.4	-111.46	-5,619.6	-1,763.5	5,934.4	5,926.9	7.50	791.549				
2,800.0	2,794.4	2,900.0	2,899.4	5.4	2.5	-111.52	-5,617.9	-1,763.9	5,935.9	5,928.1	7.79	762.278				
2,900.0	2,894.0	3,023.2	3,022.5	5.6	2.6	-111.61	-5,615.4	-1,764.3	5,937.4	5,929.3	8.11	731.834				
3,000.0	2,993.6	3,129.1	3,128.4	5.9	2.7	-111.69	-5,612.8	-1,764.2	5,938.4	5,930.0	8.43	704.847				
3,100.0	3,093.2	3,216.3	3,215.6	6.1	2.7	-111.76	-5,610.8	-1,764.0	5,939.5	5,930.8	8.72	681.007				
3,200.0	3,192.8	3,313.3	3,312.6	6.3	2.8	-111.84	-5,608.9	-1,763.2	5,940.8	5,931.7	9.03	658.080				
3,300.0	3,292.4	3,415.4	3,414.6	6.5	2.9	-111.93	-5,607.0	-1,762.0	5,942.1	5,932.7	9.34	636.330				
3,400.0	3,392.0	3,526.1	3,525.3	6.8	3.0	-112.03	-5,604.8	-1,760.4	5,943.1	5,933.5	9.66	615.455				
3,500.0	3,491.6	3,616.4	3,615.6	7.0	3.1	-112.11	-5,603.2	-1,759.1	5,944.3	5,934.4	9.96	596.977				
3,600.0	3,591.1	3,739.9	3,739.0	7.2	3.2	-112.21	-5,600.4	-1,757.9	5,945.4	5,935.1	10.29	577.948				
3,700.0	3,690.7	3,839.1	3,838.2	7.5	3.3	-112.30	-5,598.0	-1,756.8	5,946.2	5,935.6	10.60	561.166				
3,800.0	3,790.3	3,922.6	3,921.7	7.7	3.3	-112.37	-5,596.2	-1,755.7	5,947.2	5,936.3	10.89	546.022				
3,900.0	3,889.9	4,000.0	3,999.1	7.9	3.4	-112.44	-5,594.8	-1,754.5	5,948.5	5,937.4	11.18	531.945				
4,000.0	3,989.5	4,094.3	4,093.4	8.2	3.5	-112.53	-5,593.5	-1,752.9	5,950.2	5,938.7	11.49	517.935				
4,100.0	4,089.1	4,205.3	4,204.4	8.4	3.6	-112.63	-5,591.7	-1,751.4	5,951.7	5,939.9	11.81	504.051				
4,200.0	4,188.7	4,327.7	4,326.7	8.6	3.7	-112.72	-5,589.0	-1,751.0	5,953.0	5,940.9	12.14	490.493				
4,300.0	4,288.3	4,446.2	4,445.2	8.9	3.8	-112.81	-5,585.8	-1,751.3	5,954.0	5,941.5	12.46	477.754				
4,400.0	4,387.9	4,554.4	4,553.4	9.1	3.9	-112.88	-5,582.5	-1,751.6	5,954.6	5,941.9	12.78	465.958				
4,500.0	4,487.4	4,685.3	4,684.2	9.3	4.0	-112.97	-5,578.3	-1,752.0	5,955.2	5,942.1	13.12	454.041				
4,600.0	4,587.0	4,845.6	4,844.3	9.6	4.2	-113.09	-5,571.9	-1,751.4	5,954.8	5,941.3	13.48	441.821				
4,700.0	4,686.6	4,961.1	4,959.7	9.8	4.3	-113.18	-5,566.6	-1,751.0	5,953.7	5,939.9	13.80	431.389				
4,800.0	4,786.2	5,055.8	5,054.3	10.0	4.3	-113.24	-5,562.0	-1,751.0	5,952.6	5,938.5	14.11	421.966				
4,900.0	4,885.8	5,137.1	5,135.5	10.3	4.4	-113.29	-5,558.2	-1,751.4	5,951.7	5,937.3	14.40	413.279				
5,000.0	4,985.4	5,200.0	5,198.3	10.5	4.5	-113.33	-5,555.4	-1,751.7	5,951.3	5,936.6	14.68	405.403				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - MCCONAHAY 41-34 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error:	0.0 ft
Survey Program: 200-Gyro													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		
5,047.4	5,032.6	5,241.4	5,239.7	10.6	4.5	-113.36	-5,553.7	-1,752.0	5,951.2	5,936.4	14.82	401.516		
5,100.0	5,085.0	5,277.3	5,275.5	10.7	4.5	-113.38	-5,552.4	-1,752.2	5,951.3	5,936.3	14.97	397.523		
5,200.0	5,184.6	5,358.7	5,356.9	11.0	4.6	-113.44	-5,549.7	-1,752.7	5,951.8	5,936.6	15.27	389.882		
5,300.0	5,284.2	5,444.6	5,442.8	11.2	4.7	-113.50	-5,547.0	-1,753.1	5,952.6	5,937.0	15.56	382.450		
5,400.0	5,383.7	5,525.4	5,523.5	11.4	4.8	-113.55	-5,544.8	-1,753.3	5,953.6	5,937.7	15.86	375.421		
5,500.0	5,483.3	5,600.0	5,598.1	11.7	4.8	-113.60	-5,543.0	-1,753.8	5,955.0	5,938.8	16.15	368.792		
5,600.0	5,582.9	5,678.2	5,676.3	11.9	4.9	-113.66	-5,541.3	-1,754.7	5,956.8	5,940.3	16.44	362.352		
5,700.0	5,682.5	5,755.1	5,753.2	12.1	5.0	-113.70	-5,539.9	-1,755.7	5,959.0	5,942.2	16.73	356.179		
5,800.0	5,782.1	5,858.1	5,856.2	12.4	5.0	-113.77	-5,538.2	-1,757.2	5,961.5	5,944.4	17.04	349.778		
5,900.0	5,881.7	5,962.2	5,960.3	12.6	5.1	-113.83	-5,536.4	-1,758.6	5,963.7	5,946.3	17.36	343.573		
6,000.0	5,981.3	6,046.6	6,044.6	12.8	5.2	-113.89	-5,534.9	-1,759.9	5,966.0	5,948.4	17.66	337.921		
6,100.0	6,080.9	6,125.7	6,123.7	13.1	5.3	-113.93	-5,533.8	-1,761.2	5,968.7	5,950.8	17.95	332.554		
6,200.0	6,180.5	6,201.4	6,199.4	13.3	5.3	-113.98	-5,533.0	-1,762.3	5,971.8	5,953.6	18.24	327.436		
6,300.0	6,280.0	6,300.0	6,298.0	13.5	5.4	-114.05	-5,532.4	-1,763.5	5,975.1	5,956.6	18.55	322.151		
6,400.0	6,379.6	6,375.1	6,373.0	13.8	5.5	-114.10	-5,532.1	-1,764.0	5,978.7	5,959.8	18.84	317.391		
6,500.0	6,479.2	6,471.8	6,469.7	14.0	5.6	-114.17	-5,532.1	-1,764.6	5,982.5	5,963.3	19.14	312.493		
6,600.0	6,578.8	6,581.4	6,579.4	14.2	5.7	-114.25	-5,531.9	-1,765.3	5,986.2	5,966.7	19.46	307.570		
6,700.0	6,678.4	6,675.6	6,673.6	14.5	5.8	-114.32	-5,531.6	-1,766.0	5,989.9	5,970.1	19.77	303.005		
6,800.0	6,778.0	6,753.6	6,751.6	14.7	5.8	-114.37	-5,531.6	-1,766.7	5,993.8	5,973.7	20.06	298.794		
6,900.0	6,877.6	6,832.7	6,830.7	14.9	5.9	-114.43	-5,531.9	-1,767.2	5,998.1	5,977.7	20.35	294.714		
6,953.0	6,930.4	6,880.1	6,878.0	15.1	5.9	-114.47	-5,532.2	-1,767.6	6,000.5	5,980.0	20.51	292.537		
7,000.0	6,977.2	6,928.8	6,926.8	15.1	6.0	-55.95	-5,532.5	-1,768.1	6,000.8	5,980.1	20.62	291.004		
7,050.0	7,027.0	6,987.2	6,985.1	15.2	6.0	-17.09	-5,532.8	-1,768.4	5,996.9	5,976.3	20.67	290.062		
7,100.0	7,076.2	7,028.2	7,026.2	15.2	6.1	-4.21	-5,533.1	-1,768.5	5,988.9	5,968.3	20.64	290.091		
7,150.0	7,124.6	7,063.9	7,061.9	15.3	6.1	1.71	-5,533.4	-1,768.6	5,976.9	5,956.3	20.54	290.937		
7,200.0	7,171.8	7,100.0	7,097.9	15.2	6.1	5.25	-5,533.7	-1,768.8	5,960.9	5,940.5	20.38	292.518		
7,250.0	7,217.4	7,145.8	7,143.7	15.2	6.2	7.80	-5,534.2	-1,769.1	5,941.1	5,920.9	20.16	294.688		
7,300.0	7,261.1	7,191.2	7,189.2	15.2	6.2	9.93	-5,534.6	-1,769.6	5,917.4	5,897.6	19.89	297.539		
7,350.0	7,302.5	7,236.6	7,234.5	15.2	6.2	11.93	-5,535.0	-1,770.1	5,890.2	5,870.7	19.57	301.011		
7,400.0	7,341.3	7,279.7	7,277.6	15.1	6.3	13.98	-5,535.4	-1,770.3	5,859.7	5,840.4	19.21	305.021		
7,450.0	7,377.2	7,363.0	7,361.0	15.1	6.4	16.34	-5,536.0	-1,770.2	5,825.8	5,807.0	18.88	308.652		
7,500.0	7,410.0	7,429.2	7,427.1	15.1	6.4	19.12	-5,535.9	-1,770.1	5,788.8	5,770.3	18.53	312.369		
7,550.0	7,439.4	7,467.5	7,465.4	15.2	6.4	22.43	-5,535.8	-1,769.9	5,749.2	5,731.0	18.21	315.743		
7,600.0	7,465.2	7,500.8	7,498.7	15.2	6.5	26.64	-5,535.7	-1,769.7	5,707.3	5,689.4	17.99	317.265		
7,650.0	7,487.1	7,524.0	7,521.9	15.3	6.5	32.10	-5,535.5	-1,769.5	5,663.5	5,645.6	17.96	315.410		
7,700.0	7,505.1	7,542.9	7,540.8	15.5	6.5	39.44	-5,535.4	-1,769.3	5,618.2	5,599.9	18.23	308.218		
7,750.0	7,518.9	7,557.4	7,555.3	15.7	6.5	49.42	-5,535.4	-1,769.1	5,571.6	5,552.7	18.89	294.960		
7,800.0	7,528.5	7,567.4	7,565.3	15.9	6.5	62.71	-5,535.3	-1,769.0	5,524.2	5,504.3	19.86	278.130		
7,850.0	7,533.9	7,572.8	7,570.7	16.2	6.5	79.03	-5,535.3	-1,769.0	5,476.3	5,455.5	20.75	263.861		
7,886.2	7,535.0	7,573.8	7,571.7	16.4	6.5	91.57	-5,535.3	-1,769.0	5,441.5	5,420.5	21.05	258.484		
7,900.0	7,535.0	7,573.7	7,571.6	16.5	6.5	91.57	-5,535.3	-1,769.0	5,428.2	5,407.1	21.15	256.596		
8,000.0	7,535.0	7,573.2	7,571.1	17.2	6.5	91.55	-5,535.3	-1,769.0	5,332.3	5,310.3	21.99	242.441		
8,100.0	7,535.0	7,572.7	7,570.6	18.1	6.5	91.53	-5,535.3	-1,769.0	5,236.5	5,213.6	22.98	227.887		
8,200.0	7,535.0	7,572.2	7,570.1	19.1	6.5	91.51	-5,535.3	-1,769.0	5,140.9	5,116.8	24.08	213.461		
8,300.0	7,535.0	7,571.7	7,569.6	20.2	6.5	91.49	-5,535.3	-1,769.0	5,045.5	5,020.2	25.29	199.522		
8,400.0	7,535.0	7,571.2	7,569.1	21.4	6.5	91.47	-5,535.3	-1,769.0	4,950.2	4,923.6	26.57	186.284		
8,500.0	7,535.0	7,570.7	7,568.6	22.7	6.5	91.46	-5,535.3	-1,769.0	4,855.1	4,827.2	27.93	173.858		
8,600.0	7,535.0	7,570.2	7,568.1	24.0	6.5	91.44	-5,535.3	-1,769.0	4,760.3	4,730.9	29.33	162.284		
8,700.0	7,535.0	7,569.7	7,567.6	25.4	6.5	91.42	-5,535.3	-1,769.0	4,665.6	4,634.8	30.79	151.552		
8,800.0	7,535.0	7,569.2	7,567.1	26.9	6.5	91.40	-5,535.3	-1,769.0	4,571.2	4,538.9	32.28	141.629		
8,900.0	7,535.0	7,568.6	7,566.6	28.3	6.5	91.38	-5,535.3	-1,769.0	4,477.0	4,443.2	33.80	132.466		
9,000.0	7,535.0	7,568.1	7,566.1	29.8	6.5	91.36	-5,535.3	-1,769.0	4,383.1	4,347.7	35.35	124.007		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - MCCONAHAY 41-34 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error: 0.0 ft	
Survey Program: 200-Gyro													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	7,535.0	7,567.6	7,565.6	31.3	6.5	91.34	-5,535.3	-1,769.0	4,289.4	4,252.5	36.92	116.194		
9,200.0	7,535.0	7,567.1	7,565.0	32.9	6.5	91.32	-5,535.3	-1,769.0	4,196.0	4,157.5	38.51	108.972		
9,300.0	7,535.0	7,566.6	7,564.5	34.4	6.5	91.30	-5,535.3	-1,769.0	4,103.0	4,062.9	40.11	102.289		
9,400.0	7,535.0	7,566.1	7,564.0	36.0	6.5	91.28	-5,535.3	-1,769.0	4,010.3	3,968.5	41.73	96.096		
9,500.0	7,535.0	7,565.6	7,563.5	37.6	6.5	91.26	-5,535.3	-1,769.1	3,917.9	3,874.5	43.36	90.348		
9,600.0	7,535.0	7,565.1	7,563.0	39.2	6.5	91.25	-5,535.3	-1,769.1	3,825.9	3,780.9	45.01	85.006		
9,700.0	7,535.0	7,564.6	7,562.5	40.9	6.5	91.23	-5,535.3	-1,769.1	3,734.4	3,687.7	46.66	80.033		
9,800.0	7,535.0	7,564.1	7,562.0	42.5	6.5	91.21	-5,535.3	-1,769.1	3,643.3	3,594.9	48.32	75.396		
9,900.0	7,535.0	7,563.6	7,561.5	44.1	6.5	91.19	-5,535.3	-1,769.1	3,552.6	3,502.6	49.99	71.067		
10,000.0	7,535.0	7,563.1	7,561.0	45.8	6.5	91.17	-5,535.3	-1,769.1	3,462.5	3,410.8	51.66	67.018		
10,100.0	7,535.0	7,562.6	7,560.5	47.4	6.5	91.15	-5,535.3	-1,769.1	3,372.9	3,319.6	53.35	63.228		
10,200.0	7,535.0	7,562.1	7,560.0	49.1	6.5	91.13	-5,535.3	-1,769.1	3,283.9	3,228.9	55.03	59.674		
10,300.0	7,535.0	7,561.6	7,559.5	50.8	6.5	91.11	-5,535.3	-1,769.1	3,195.6	3,138.9	56.72	56.338		
10,400.0	7,535.0	7,561.1	7,559.0	52.5	6.5	91.09	-5,535.4	-1,769.1	3,108.0	3,049.6	58.42	53.204		
10,500.0	7,535.0	7,560.6	7,558.5	54.1	6.5	91.08	-5,535.4	-1,769.1	3,021.2	2,961.1	60.12	50.256		
10,600.0	7,535.0	7,560.1	7,558.0	55.8	6.5	91.06	-5,535.4	-1,769.1	2,935.2	2,873.4	61.82	47.481		
10,700.0	7,535.0	7,559.6	7,557.5	57.5	6.5	91.04	-5,535.4	-1,769.1	2,850.1	2,786.6	63.52	44.866		
10,800.0	7,535.0	7,559.1	7,557.0	59.2	6.5	91.02	-5,535.4	-1,769.1	2,766.0	2,700.8	65.23	42.402		
10,900.0	7,535.0	7,558.6	7,556.5	60.9	6.5	91.00	-5,535.4	-1,769.1	2,683.0	2,616.1	66.94	40.079		
11,000.0	7,535.0	7,558.1	7,556.0	62.6	6.5	90.98	-5,535.4	-1,769.1	2,601.2	2,532.6	68.66	37.887		
11,100.0	7,535.0	7,557.6	7,555.5	64.3	6.5	90.96	-5,535.4	-1,769.1	2,520.7	2,450.4	70.37	35.820		
11,200.0	7,535.0	7,557.1	7,555.0	66.0	6.5	90.94	-5,535.4	-1,769.1	2,441.7	2,369.6	72.09	33.870		
11,300.0	7,535.0	7,556.6	7,554.5	67.7	6.5	90.92	-5,535.4	-1,769.1	2,364.2	2,290.4	73.81	32.031		
11,400.0	7,535.0	7,556.1	7,554.0	69.4	6.5	90.91	-5,535.4	-1,769.2	2,288.5	2,213.0	75.53	30.299		
11,496.2	7,535.0	7,555.6	7,553.5	71.1	6.5	90.89	-5,535.4	-1,769.2	2,217.5	2,140.3	77.19	28.728		
11,500.0	7,535.0	7,555.6	7,553.5	71.2	6.5	90.89	-5,535.4	-1,769.2	2,214.7	2,137.5	77.26	28.668		
11,600.0	7,535.0	7,555.1	7,553.0	72.9	6.5	90.87	-5,535.4	-1,769.2	2,143.1	2,064.1	78.98	27.135		
11,700.0	7,535.0	7,554.6	7,552.5	74.6	6.5	90.85	-5,535.4	-1,769.2	2,073.8	1,993.1	80.71	25.696		
11,800.0	7,535.0	7,554.1	7,552.0	76.3	6.5	90.83	-5,535.4	-1,769.2	2,007.1	1,924.6	82.43	24.348		
11,900.0	7,535.0	7,553.6	7,551.5	78.0	6.5	90.81	-5,535.4	-1,769.2	1,943.2	1,859.1	84.16	23.089		
12,000.0	7,535.0	7,553.1	7,551.0	79.7	6.5	90.79	-5,535.4	-1,769.2	1,882.5	1,796.6	85.89	21.917		
12,100.0	7,535.0	7,552.6	7,550.6	81.5	6.5	90.78	-5,535.4	-1,769.2	1,825.3	1,737.6	87.62	20.831		
12,200.0	7,535.0	7,552.1	7,550.1	83.2	6.5	90.76	-5,535.4	-1,769.2	1,771.8	1,682.5	89.35	19.829		
12,296.2	7,535.0	7,551.7	7,549.6	84.9	6.5	90.74	-5,535.4	-1,769.2	1,724.3	1,633.3	91.02	18.944		
12,300.0	7,535.0	7,551.6	7,549.6	84.9	6.5	90.74	-5,535.4	-1,769.2	1,722.5	1,631.4	91.10	18.909		
12,400.0	7,535.0	7,551.1	7,549.0	86.6	6.5	90.73	-5,535.4	-1,769.2	1,676.0	1,583.0	93.04	18.015		
12,492.9	7,535.0	7,550.6	7,548.5	88.3	6.5	90.72	-5,535.4	-1,769.2	1,634.3	1,539.6	94.75	17.248		
12,500.0	7,535.0	7,550.6	7,548.5	88.4	6.5	90.72	-5,535.4	-1,769.2	1,631.2	1,536.3	94.87	17.193		
12,600.0	7,535.0	7,550.0	7,547.9	90.1	6.5	90.70	-5,535.4	-1,769.2	1,590.0	1,493.4	96.61	16.458		
12,700.0	7,535.0	7,549.5	7,547.4	91.9	6.5	90.68	-5,535.4	-1,769.2	1,554.1	1,455.8	98.35	15.803		
12,800.0	7,535.0	7,548.9	7,546.8	93.6	6.5	90.66	-5,535.4	-1,769.2	1,524.0	1,423.9	100.08	15.227		
12,900.0	7,535.0	7,548.3	7,546.2	95.3	6.5	90.63	-5,535.4	-1,769.2	1,499.9	1,398.1	101.82	14.731		
13,000.0	7,535.0	7,547.8	7,545.7	97.1	6.5	90.61	-5,535.4	-1,769.2	1,482.2	1,378.7	103.56	14.313		
13,100.0	7,535.0	7,547.2	7,545.1	98.8	6.5	90.59	-5,535.4	-1,769.2	1,471.1	1,365.8	105.30	13.971		
13,200.0	7,535.0	7,546.6	7,544.5	100.5	6.5	90.57	-5,535.4	-1,769.2	1,466.8	1,359.8	107.04	13.704		
13,213.8	7,535.0	7,546.6	7,544.5	100.8	6.5	90.57	-5,535.4	-1,769.2	1,466.7	1,359.5	107.28	13.672 CC, ES		
13,300.0	7,535.0	7,546.1	7,544.0	102.3	6.5	90.55	-5,535.4	-1,769.3	1,469.3	1,360.5	108.78	13.507		
13,400.0	7,535.0	7,545.5	7,543.4	104.0	6.5	90.52	-5,535.4	-1,769.3	1,478.5	1,368.0	110.52	13.378		
13,500.0	7,535.0	7,544.9	7,542.9	105.8	6.5	90.50	-5,535.4	-1,769.3	1,494.4	1,382.1	112.26	13.312		
13,600.0	7,535.0	7,544.4	7,542.3	107.5	6.5	90.48	-5,535.4	-1,769.3	1,516.7	1,402.7	114.00	13.305 SF		
13,700.0	7,535.0	7,543.8	7,541.7	109.3	6.5	90.46	-5,535.4	-1,769.3	1,545.2	1,429.5	115.74	13.351		
13,800.0	7,535.0	7,543.3	7,541.2	111.0	6.5	90.44	-5,535.4	-1,769.3	1,579.5	1,462.1	117.48	13.445		

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



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - MCCONAHAY 41-34 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error: 0.0 ft
Survey Program: 200-Gyro													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
13,900.0	7,535.0	7,542.7	7,540.6	112.7	6.5	90.42	-5,535.4	-1,769.3	1,619.3	1,500.1	119.23	13.582	
14,000.0	7,535.0	7,542.2	7,540.1	114.5	6.5	90.39	-5,535.4	-1,769.3	1,664.2	1,543.2	120.97	13.757	
14,100.0	7,535.0	7,541.6	7,539.5	116.2	6.5	90.37	-5,535.5	-1,769.3	1,713.7	1,591.0	122.71	13.965	
14,200.0	7,535.0	7,541.0	7,539.0	118.0	6.5	90.35	-5,535.5	-1,769.3	1,767.5	1,643.0	124.46	14.201	
14,300.0	7,535.0	7,540.5	7,538.4	119.7	6.5	90.33	-5,535.5	-1,769.3	1,825.1	1,698.9	126.20	14.462	
14,400.0	7,535.0	7,539.9	7,537.8	121.5	6.5	90.31	-5,535.5	-1,769.3	1,886.4	1,758.4	127.95	14.743	
14,500.0	7,535.0	7,539.4	7,537.3	123.2	6.5	90.28	-5,535.5	-1,769.3	1,950.8	1,821.1	129.69	15.042	
14,600.0	7,535.0	7,538.8	7,536.7	124.9	6.5	90.26	-5,535.5	-1,769.3	2,018.1	1,886.7	131.44	15.354	
14,672.4	7,535.0	7,538.4	7,536.3	126.2	6.5	90.25	-5,535.5	-1,769.3	2,068.5	1,935.8	132.70	15.588	
14,672.9	7,535.0	7,538.4	7,536.3	126.2	6.5	90.25	-5,535.5	-1,769.3	2,068.9	1,936.2	132.71	15.590	





# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - MCCONAHAY 43-34 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 8230-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-168.02	-8,301.5	-1,762.0	8,486.4					
100.0	100.0	90.0	90.0	0.2	0.2	-168.02	-8,301.5	-1,762.0	8,486.4	8,486.1	0.31	N/A		
200.0	200.0	190.0	190.0	0.3	0.3	-168.02	-8,301.5	-1,762.0	8,486.4	8,485.8	0.66	N/A		
300.0	300.0	290.0	290.0	0.5	0.5	-168.02	-8,301.5	-1,762.0	8,486.4	8,485.4	1.01	8,425.357		
400.0	400.0	390.0	390.0	0.7	0.7	-168.02	-8,301.5	-1,762.0	8,486.4	8,485.1	1.36	6,256.988		
500.0	500.0	490.0	490.0	0.8	0.9	-168.02	-8,301.5	-1,762.0	8,486.4	8,484.7	1.71	4,976.281		
600.0	600.0	590.0	590.0	1.0	1.0	-168.02	-8,301.5	-1,762.0	8,486.4	8,484.4	2.05	4,130.776		
700.0	700.0	690.0	690.0	1.2	1.2	-168.02	-8,301.5	-1,762.0	8,486.4	8,484.0	2.40	3,530.859		
800.0	800.0	790.0	790.0	1.4	1.4	-168.02	-8,301.5	-1,762.0	8,486.4	8,483.7	2.75	3,083.097		
900.0	900.0	890.0	890.0	1.5	1.6	-168.02	-8,301.5	-1,762.0	8,486.4	8,483.3	3.10	2,736.119		
1,000.0	1,000.0	990.0	990.0	1.7	1.7	-168.02	-8,301.5	-1,762.0	8,486.4	8,483.0	3.45	2,459.340		
1,100.0	1,100.0	1,090.0	1,090.0	1.9	1.9	-168.02	-8,301.5	-1,762.0	8,486.4	8,482.6	3.80	2,233.413		
1,200.0	1,200.0	1,190.0	1,190.0	2.1	2.1	-115.78	-8,301.5	-1,762.0	8,486.8	8,482.7	4.15	2,045.549		
1,300.0	1,300.0	1,290.0	1,290.0	2.2	2.3	-115.79	-8,301.5	-1,762.0	8,487.9	8,483.4	4.50	1,886.633		
1,400.0	1,399.9	1,389.9	1,389.9	2.4	2.4	-115.80	-8,301.5	-1,762.0	8,489.8	8,485.0	4.85	1,749.932		
1,500.0	1,499.7	1,489.7	1,489.7	2.6	2.6	-115.81	-8,301.5	-1,762.0	8,492.5	8,487.3	5.21	1,630.515		
1,600.0	1,599.4	1,589.4	1,589.4	2.8	2.8	-115.83	-8,301.5	-1,762.0	8,495.9	8,490.4	5.57	1,524.737		
1,619.7	1,619.0	1,609.0	1,609.0	2.8	2.8	-115.83	-8,301.5	-1,762.0	8,496.7	8,491.1	5.64	1,505.328		
1,700.0	1,699.0	1,689.0	1,689.0	3.0	2.9	-115.87	-8,301.5	-1,762.0	8,499.9	8,493.9	5.94	1,430.607		
1,800.0	1,798.5	1,788.5	1,788.5	3.2	3.1	-115.93	-8,301.5	-1,762.0	8,503.8	8,497.5	6.31	1,346.637		
1,900.0	1,898.1	1,888.1	1,888.1	3.4	3.3	-115.98	-8,301.5	-1,762.0	8,507.8	8,501.1	6.69	1,271.445		
2,000.0	1,997.7	1,987.7	1,987.7	3.6	3.5	-116.04	-8,301.5	-1,762.0	8,511.8	8,504.7	7.07	1,203.822		
2,100.0	2,097.3	2,087.3	2,087.3	3.9	3.6	-116.09	-8,301.5	-1,762.0	8,515.8	8,508.4	7.45	1,142.751		
2,200.0	2,196.9	2,186.9	2,186.9	4.1	3.8	-116.15	-8,301.5	-1,762.0	8,519.8	8,512.0	7.84	1,087.375		
2,300.0	2,296.5	2,286.5	2,286.5	4.3	4.0	-116.20	-8,301.5	-1,762.0	8,523.8	8,515.6	8.22	1,036.970		
2,400.0	2,396.1	2,386.1	2,386.1	4.5	4.2	-116.26	-8,301.5	-1,762.0	8,527.8	8,519.2	8.61	990.922		
2,500.0	2,495.7	2,485.7	2,485.7	4.7	4.3	-116.31	-8,301.5	-1,762.0	8,531.9	8,522.9	8.99	948.712		
2,600.0	2,595.3	2,585.3	2,585.3	5.0	4.5	-116.37	-8,301.5	-1,762.0	8,535.9	8,526.5	9.38	909.894		
2,700.0	2,694.8	2,684.8	2,684.8	5.2	4.7	-116.42	-8,301.5	-1,762.0	8,539.9	8,530.2	9.77	874.087		
2,800.0	2,794.4	2,784.4	2,784.4	5.4	4.9	-116.47	-8,301.5	-1,762.0	8,544.0	8,533.8	10.16	840.964		
2,900.0	2,894.0	2,884.0	2,884.0	5.6	5.0	-116.53	-8,301.5	-1,762.0	8,548.0	8,537.5	10.55	810.240		
3,000.0	2,993.6	2,983.6	2,983.6	5.9	5.2	-116.58	-8,301.5	-1,762.0	8,552.1	8,541.2	10.94	781.671		
3,100.0	3,093.2	3,083.2	3,083.2	6.1	5.4	-116.64	-8,301.5	-1,762.0	8,556.2	8,544.8	11.33	755.042		
3,200.0	3,192.8	3,182.8	3,182.8	6.3	5.6	-116.69	-8,301.5	-1,762.0	8,560.2	8,548.5	11.72	730.165		
3,300.0	3,292.4	3,282.4	3,282.4	6.5	5.7	-116.74	-8,301.5	-1,762.0	8,564.3	8,552.2	12.12	706.876		
3,400.0	3,392.0	3,382.0	3,382.0	6.8	5.9	-116.80	-8,301.5	-1,762.0	8,568.4	8,555.9	12.51	685.030		
3,500.0	3,491.6	3,481.6	3,481.6	7.0	6.1	-116.85	-8,301.5	-1,762.0	8,572.5	8,559.6	12.90	664.500		
3,600.0	3,591.1	3,581.1	3,581.1	7.2	6.3	-116.91	-8,301.5	-1,762.0	8,576.6	8,563.3	13.29	645.171		
3,700.0	3,690.7	3,680.7	3,680.7	7.5	6.4	-116.96	-8,301.5	-1,762.0	8,580.8	8,567.1	13.69	626.943		
3,800.0	3,790.3	3,780.3	3,780.3	7.7	6.6	-117.01	-8,301.5	-1,762.0	8,584.9	8,570.8	14.08	609.725		
3,900.0	3,889.9	3,879.9	3,879.9	7.9	6.8	-117.07	-8,301.5	-1,762.0	8,589.0	8,574.5	14.47	593.436		
4,000.0	3,989.5	3,979.5	3,979.5	8.2	6.9	-117.12	-8,301.5	-1,762.0	8,593.1	8,578.3	14.87	578.005		
4,100.0	4,089.1	4,079.1	4,079.1	8.4	7.1	-117.17	-8,301.5	-1,762.0	8,597.3	8,582.0	15.26	563.365		
4,200.0	4,188.7	4,178.7	4,178.7	8.6	7.3	-117.23	-8,301.5	-1,762.0	8,601.4	8,585.8	15.65	549.459		
4,300.0	4,288.3	4,278.3	4,278.3	8.9	7.5	-117.28	-8,301.5	-1,762.0	8,605.6	8,589.6	16.05	536.232		
4,400.0	4,387.9	4,377.9	4,377.9	9.1	7.6	-117.33	-8,301.5	-1,762.0	8,609.8	8,593.3	16.44	523.637		
4,500.0	4,487.4	4,477.4	4,477.4	9.3	7.8	-117.39	-8,301.5	-1,762.0	8,614.0	8,597.1	16.84	511.630		
4,600.0	4,587.0	4,577.0	4,577.0	9.6	8.0	-117.44	-8,301.5	-1,762.0	8,618.1	8,600.9	17.23	500.171		
4,700.0	4,686.6	4,676.6	4,676.6	9.8	8.2	-117.49	-8,301.5	-1,762.0	8,622.3	8,604.7	17.62	489.224		
4,800.0	4,786.2	4,776.2	4,776.2	10.0	8.3	-117.55	-8,301.5	-1,762.0	8,626.5	8,608.5	18.02	478.755		
4,900.0	4,885.8	4,875.8	4,875.8	10.3	8.5	-117.60	-8,301.5	-1,762.0	8,630.7	8,612.3	18.41	468.734		
5,000.0	4,985.4	4,975.4	4,975.4	10.5	8.7	-117.65	-8,301.5	-1,762.0	8,634.9	8,616.1	18.81	459.133		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - MCCONAHAY 43-34 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 8230-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	5,085.0	5,075.0	5,075.0	10.7	8.9	-117.71	-8,301.5	-1,762.0	8,639.2	8,620.0	19.20	449.926		
5,200.0	5,184.6	5,174.6	5,174.6	11.0	9.0	-117.76	-8,301.5	-1,762.0	8,643.4	8,623.8	19.60	441.090		
5,300.0	5,284.2	5,274.2	5,274.2	11.2	9.2	-117.81	-8,301.5	-1,762.0	8,647.6	8,627.6	19.99	432.603		
5,400.0	5,383.7	5,373.7	5,373.7	11.4	9.4	-117.87	-8,301.5	-1,762.0	8,651.9	8,631.5	20.38	424.444		
5,500.0	5,483.3	5,473.3	5,473.3	11.7	9.6	-117.92	-8,301.5	-1,762.0	8,656.1	8,635.4	20.78	416.596		
5,600.0	5,582.9	5,572.9	5,572.9	11.9	9.7	-117.97	-8,301.5	-1,762.0	8,660.4	8,639.2	21.17	409.040		
5,700.0	5,682.5	5,672.5	5,672.5	12.1	9.9	-118.02	-8,301.5	-1,762.0	8,664.7	8,643.1	21.57	401.762		
5,800.0	5,782.1	5,772.1	5,772.1	12.4	10.1	-118.08	-8,301.5	-1,762.0	8,668.9	8,647.0	21.96	394.745		
5,900.0	5,881.7	5,871.7	5,871.7	12.6	10.2	-118.13	-8,301.5	-1,762.0	8,673.2	8,650.9	22.35	387.977		
6,000.0	5,981.3	5,971.3	5,971.3	12.8	10.4	-118.18	-8,301.5	-1,762.0	8,677.5	8,654.7	22.75	381.444		
6,100.0	6,080.9	6,070.9	6,070.9	13.1	10.6	-118.23	-8,301.5	-1,762.0	8,681.8	8,658.7	23.14	375.134		
6,200.0	6,180.5	6,170.5	6,170.5	13.3	10.8	-118.29	-8,301.5	-1,762.0	8,686.1	8,662.6	23.54	369.037		
6,300.0	6,280.0	6,270.0	6,270.0	13.5	10.9	-118.34	-8,301.5	-1,762.0	8,690.4	8,666.5	23.93	363.141		
6,400.0	6,379.6	6,369.6	6,369.6	13.8	11.1	-118.39	-8,301.5	-1,762.0	8,694.7	8,670.4	24.33	357.437		
6,500.0	6,479.2	6,469.2	6,469.2	14.0	11.3	-118.44	-8,301.5	-1,762.0	8,699.0	8,674.3	24.72	351.916		
6,600.0	6,578.8	6,568.8	6,568.8	14.2	11.5	-118.50	-8,301.5	-1,762.0	8,703.4	8,678.3	25.11	346.569		
6,700.0	6,678.4	6,668.4	6,668.4	14.5	11.6	-118.55	-8,301.5	-1,762.0	8,707.7	8,682.2	25.51	341.388		
6,800.0	6,778.0	6,768.0	6,768.0	14.7	11.8	-118.60	-8,301.5	-1,762.0	8,712.1	8,686.2	25.90	336.365		
6,900.0	6,877.6	6,867.6	6,867.6	14.9	12.0	-118.65	-8,301.5	-1,762.0	8,716.4	8,690.1	26.29	331.494		
6,953.0	6,930.4	6,920.4	6,920.4	15.1	12.1	-118.68	-8,301.5	-1,762.0	8,718.7	8,692.2	26.50	328.969		
7,000.0	6,977.2	6,967.2	6,967.2	15.1	12.2	-60.15	-8,301.5	-1,762.0	8,718.9	8,692.2	26.65	327.119		
7,050.0	7,027.0	7,017.0	7,017.0	15.2	12.2	-21.31	-8,301.5	-1,762.0	8,714.9	8,688.2	26.68	326.704		
7,100.0	7,076.2	7,066.2	7,066.2	15.2	12.3	-8.49	-8,301.5	-1,762.0	8,706.7	8,680.1	26.55	327.884		
7,150.0	7,124.6	7,114.6	7,114.6	15.3	12.4	-2.66	-8,301.5	-1,762.0	8,694.3	8,668.0	26.29	330.673		
7,200.0	7,171.8	7,161.8	7,161.8	15.2	12.5	0.76	-8,301.5	-1,762.0	8,677.8	8,651.9	25.90	335.105		
7,250.0	7,217.4	7,207.4	7,207.4	15.2	12.6	3.14	-8,301.5	-1,762.0	8,657.3	8,631.9	25.37	341.226		
7,300.0	7,261.1	7,251.1	7,251.1	15.2	12.7	5.05	-8,301.5	-1,762.0	8,633.0	8,608.3	24.73	349.079		
7,350.0	7,302.5	7,292.5	7,292.5	15.2	12.7	6.76	-8,301.5	-1,762.0	8,605.1	8,581.1	23.99	358.683		
7,400.0	7,341.3	7,331.3	7,331.3	15.1	12.8	8.45	-8,301.5	-1,762.0	8,573.8	8,550.6	23.17	369.983		
7,450.0	7,377.2	7,367.2	7,367.2	15.1	12.9	10.25	-8,301.5	-1,762.0	8,539.3	8,516.9	22.31	382.765		
7,500.0	7,410.0	7,400.0	7,400.0	15.1	12.9	12.32	-8,301.5	-1,762.0	8,501.8	8,480.4	21.44	396.497		
7,550.0	7,439.4	7,429.4	7,429.4	15.2	13.0	14.82	-8,301.5	-1,762.0	8,461.8	8,441.2	20.64	410.039		
7,600.0	7,465.2	7,455.2	7,455.2	15.2	13.0	18.02	-8,301.5	-1,762.0	8,419.5	8,399.5	19.99	421.163		
7,650.0	7,487.1	7,477.1	7,477.1	15.3	13.1	22.31	-8,301.5	-1,762.0	8,375.1	8,355.5	19.66	425.906		
7,700.0	7,505.1	7,495.1	7,495.1	15.5	13.1	28.40	-8,301.5	-1,762.0	8,329.1	8,309.2	19.91	418.246		
7,750.0	7,518.9	7,508.9	7,508.9	15.7	13.1	37.47	-8,301.5	-1,762.0	8,281.8	8,260.7	21.12	392.050		
7,800.0	7,528.5	7,518.5	7,518.5	15.9	13.1	51.46	-8,301.5	-1,762.0	8,233.6	8,210.0	23.62	348.632		
7,850.0	7,533.9	7,523.9	7,523.9	16.2	13.1	72.13	-8,301.5	-1,762.0	8,184.8	8,158.1	26.66	307.052		
7,886.2	7,535.0	7,525.0	7,525.0	16.4	13.1	90.00	-8,301.5	-1,762.0	8,149.3	8,121.6	27.66	294.594		
7,900.0	7,535.0	7,525.0	7,525.0	16.5	13.1	90.00	-8,301.5	-1,762.0	8,135.7	8,108.0	27.77	293.012		
8,000.0	7,535.0	7,525.0	7,525.0	17.2	13.1	90.00	-8,301.5	-1,762.0	8,037.7	8,009.1	28.61	280.988		
8,100.0	7,535.0	7,525.0	7,525.0	18.1	13.1	90.00	-8,301.5	-1,762.0	7,939.8	7,910.2	29.59	268.330		
8,200.0	7,535.0	7,525.0	7,525.0	19.1	13.1	90.00	-8,301.5	-1,762.0	7,841.9	7,811.2	30.69	255.481		
8,300.0	7,535.0	7,525.0	7,525.0	20.2	13.1	90.00	-8,301.5	-1,762.0	7,744.0	7,712.1	31.90	242.768		
8,400.0	7,535.0	7,525.0	7,525.0	21.4	13.1	90.00	-8,301.5	-1,762.0	7,646.2	7,613.0	33.18	230.415		
8,500.0	7,535.0	7,525.0	7,525.0	22.7	13.1	90.00	-8,301.5	-1,762.0	7,548.5	7,513.9	34.54	218.561		
8,600.0	7,535.0	7,525.0	7,525.0	24.0	13.1	90.00	-8,301.5	-1,762.0	7,450.8	7,414.8	35.94	207.286		
8,700.0	7,535.0	7,525.0	7,525.0	25.4	13.1	90.00	-8,301.5	-1,762.0	7,353.1	7,315.7	37.40	196.623		
8,800.0	7,535.0	7,525.0	7,525.0	26.9	13.1	90.00	-8,301.5	-1,762.0	7,255.6	7,216.7	38.89	186.579		
8,900.0	7,535.0	7,525.0	7,525.0	28.3	13.1	90.00	-8,301.5	-1,762.0	7,158.1	7,117.7	40.41	177.139		
9,000.0	7,535.0	7,525.0	7,525.0	29.8	13.1	90.00	-8,301.5	-1,762.0	7,060.7	7,018.7	41.96	168.280		
9,100.0	7,535.0	7,525.0	7,525.0	31.3	13.1	90.00	-8,301.5	-1,762.0	6,963.3	6,919.8	43.53	159.971		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - MCCONAHAY 43-34 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 8230-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	7,535.0	7,525.0	7,525.0	32.9	13.1	90.00	-8,301.5	-1,762.0	6,866.0	6,820.9	45.12	152.177		
9,300.0	7,535.0	7,525.0	7,525.0	34.4	13.1	90.00	-8,301.5	-1,762.0	6,768.9	6,722.1	46.73	144.865		
9,400.0	7,535.0	7,525.0	7,525.0	36.0	13.1	90.00	-8,301.5	-1,762.0	6,671.7	6,623.4	48.35	138.000		
9,500.0	7,535.0	7,525.0	7,525.0	37.6	13.1	90.00	-8,301.5	-1,762.0	6,574.7	6,524.7	49.98	131.550		
9,600.0	7,535.0	7,525.0	7,525.0	39.2	13.1	90.00	-8,301.5	-1,762.0	6,477.8	6,426.2	51.62	125.484		
9,700.0	7,535.0	7,525.0	7,525.0	40.9	13.1	90.00	-8,301.5	-1,762.0	6,380.9	6,327.7	53.28	119.772		
9,800.0	7,535.0	7,525.0	7,525.0	42.5	13.1	90.00	-8,301.5	-1,762.0	6,284.2	6,229.3	54.94	114.389		
9,900.0	7,535.0	7,525.0	7,525.0	44.1	13.1	90.00	-8,301.5	-1,762.0	6,187.6	6,131.0	56.61	109.310		
10,000.0	7,535.0	7,525.0	7,525.0	45.8	13.1	90.00	-8,301.5	-1,762.0	6,091.0	6,032.8	58.28	104.511		
10,100.0	7,535.0	7,525.0	7,525.0	47.4	13.1	90.00	-8,301.5	-1,762.0	5,994.6	5,934.7	59.96	99.973		
10,200.0	7,535.0	7,525.0	7,525.0	49.1	13.1	90.00	-8,301.5	-1,762.0	5,898.3	5,836.7	61.65	95.677		
10,300.0	7,535.0	7,525.0	7,525.0	50.8	13.1	90.00	-8,301.5	-1,762.0	5,802.2	5,738.8	63.34	91.604		
10,400.0	7,535.0	7,525.0	7,525.0	52.5	13.1	90.00	-8,301.5	-1,762.0	5,706.1	5,641.1	65.04	87.739		
10,500.0	7,535.0	7,525.0	7,525.0	54.1	13.1	90.00	-8,301.5	-1,762.0	5,610.2	5,543.5	66.73	84.068		
10,600.0	7,535.0	7,525.0	7,525.0	55.8	13.1	90.00	-8,301.5	-1,762.0	5,514.5	5,446.1	68.44	80.578		
10,700.0	7,535.0	7,525.0	7,525.0	57.5	13.1	90.00	-8,301.5	-1,762.0	5,418.9	5,348.7	70.14	77.255		
10,800.0	7,535.0	7,525.0	7,525.0	59.2	13.1	90.00	-8,301.5	-1,762.0	5,323.5	5,251.6	71.85	74.090		
10,900.0	7,535.0	7,525.0	7,525.0	60.9	13.1	90.00	-8,301.5	-1,762.0	5,228.2	5,154.6	73.56	71.071		
11,000.0	7,535.0	7,525.0	7,525.0	62.6	13.1	90.00	-8,301.5	-1,762.0	5,133.1	5,057.8	75.28	68.190		
11,100.0	7,535.0	7,525.0	7,525.0	64.3	13.1	90.00	-8,301.5	-1,762.0	5,038.2	4,961.2	76.99	65.437		
11,200.0	7,535.0	7,525.0	7,525.0	66.0	13.1	90.00	-8,301.5	-1,762.0	4,943.5	4,864.8	78.71	62.806		
11,300.0	7,535.0	7,525.0	7,525.0	67.7	13.1	90.00	-8,301.5	-1,762.0	4,849.0	4,768.6	80.43	60.288		
11,400.0	7,535.0	7,525.0	7,525.0	69.4	13.1	90.00	-8,301.5	-1,762.0	4,754.8	4,672.6	82.15	57.877		
11,496.2	7,535.0	7,525.0	7,525.0	71.1	13.1	90.00	-8,301.5	-1,762.0	4,664.3	4,580.5	83.81	55.654		
11,500.0	7,535.0	7,525.0	7,525.0	71.2	13.1	90.00	-8,301.5	-1,762.0	4,660.8	4,576.9	83.88	55.567		
11,600.0	7,535.0	7,525.0	7,525.0	72.9	13.1	90.00	-8,301.5	-1,762.0	4,567.0	4,481.4	85.60	53.352		
11,700.0	7,535.0	7,525.0	7,525.0	74.6	13.1	90.00	-8,301.5	-1,762.0	4,473.5	4,386.2	87.33	51.227		
11,800.0	7,535.0	7,525.0	7,525.0	76.3	13.1	90.00	-8,301.5	-1,762.0	4,380.3	4,291.2	89.05	49.186		
11,900.0	7,535.0	7,525.0	7,525.0	78.0	13.1	90.00	-8,301.5	-1,762.0	4,287.4	4,196.6	90.78	47.226		
12,000.0	7,535.0	7,525.0	7,525.0	79.7	13.1	90.00	-8,301.5	-1,762.0	4,194.8	4,102.3	92.51	45.343		
12,100.0	7,535.0	7,525.0	7,525.0	81.5	13.1	90.00	-8,301.5	-1,762.0	4,102.6	4,008.4	94.24	43.531		
12,200.0	7,535.0	7,525.0	7,525.0	83.2	13.1	90.00	-8,301.5	-1,762.0	4,010.7	3,914.8	95.98	41.789		
12,296.2	7,535.0	7,525.0	7,525.0	84.9	13.1	90.00	-8,301.5	-1,762.0	3,922.8	3,825.1	97.64	40.174		
12,300.0	7,535.0	7,525.0	7,525.0	84.9	13.1	90.00	-8,301.5	-1,762.0	3,919.3	3,821.6	97.72	40.107		
12,400.0	7,535.0	7,525.0	7,525.0	86.6	13.1	90.00	-8,301.5	-1,762.0	3,827.5	3,727.8	99.66	38.406		
12,492.9	7,535.0	7,525.0	7,525.0	88.3	13.1	90.00	-8,301.5	-1,762.0	3,741.4	3,640.0	101.37	36.907		
12,500.0	7,535.0	7,525.0	7,525.0	88.4	13.1	90.00	-8,301.5	-1,762.0	3,734.8	3,633.3	101.50	36.797		
12,600.0	7,535.0	7,525.0	7,525.0	90.1	13.1	90.00	-8,301.5	-1,762.0	3,641.8	3,538.6	103.23	35.278		
12,700.0	7,535.0	7,525.0	7,525.0	91.9	13.1	90.00	-8,301.5	-1,762.0	3,549.3	3,444.3	104.97	33.813		
12,800.0	7,535.0	7,525.0	7,525.0	93.6	13.1	90.00	-8,301.5	-1,762.0	3,457.1	3,350.4	106.71	32.399		
12,900.0	7,535.0	7,525.0	7,525.0	95.3	13.1	90.00	-8,301.5	-1,762.0	3,365.4	3,257.0	108.44	31.034		
13,000.0	7,535.0	7,525.0	7,525.0	97.1	13.1	90.00	-8,301.5	-1,762.0	3,274.2	3,164.0	110.18	29.716		
13,100.0	7,535.0	7,525.0	7,525.0	98.8	13.1	90.00	-8,301.5	-1,762.0	3,183.6	3,071.6	111.92	28.445		
13,200.0	7,535.0	7,525.0	7,525.0	100.5	13.1	90.00	-8,301.5	-1,762.0	3,093.5	2,979.8	113.66	27.216		
13,300.0	7,535.0	7,525.0	7,525.0	102.3	13.1	90.00	-8,301.5	-1,762.0	3,004.0	2,888.6	115.40	26.031		
13,400.0	7,535.0	7,525.0	7,525.0	104.0	13.1	90.00	-8,301.5	-1,762.0	2,915.2	2,798.0	117.14	24.886		
13,500.0	7,535.0	7,525.0	7,525.0	105.8	13.1	90.00	-8,301.5	-1,762.0	2,827.1	2,708.3	118.88	23.781		
13,600.0	7,535.0	7,525.0	7,525.0	107.5	13.1	90.00	-8,301.5	-1,762.0	2,739.9	2,619.3	120.62	22.714		
13,700.0	7,535.0	7,525.0	7,525.0	109.3	13.1	90.00	-8,301.5	-1,762.0	2,653.6	2,531.2	122.37	21.686		
13,800.0	7,535.0	7,525.0	7,525.0	111.0	13.1	90.00	-8,301.5	-1,762.0	2,568.3	2,444.2	124.11	20.694		
13,900.0	7,535.0	7,525.0	7,525.0	112.7	13.1	90.00	-8,301.5	-1,762.0	2,484.0	2,358.2	125.85	19.738		
14,000.0	7,535.0	7,525.0	7,525.0	114.5	13.1	90.00	-8,301.5	-1,762.0	2,401.0	2,273.4	127.60	18.817		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - MCCONAHAY 43-34 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error: 0.0 ft
Survey Program: 8230-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
14,100.0	7,535.0	7,525.0	7,525.0	116.2	13.1	90.00	-8,301.5	-1,762.0	2,319.3	2,190.0	129.34	17.932	
14,200.0	7,535.0	7,525.0	7,525.0	118.0	13.1	90.00	-8,301.5	-1,762.0	2,239.1	2,108.0	131.08	17.082	
14,300.0	7,535.0	7,525.0	7,525.0	119.7	13.1	90.00	-8,301.5	-1,762.0	2,160.6	2,027.8	132.83	16.266	
14,400.0	7,535.0	7,525.0	7,525.0	121.5	13.1	90.00	-8,301.5	-1,762.0	2,083.9	1,949.3	134.57	15.485	
14,500.0	7,535.0	7,525.0	7,525.0	123.2	13.1	90.00	-8,301.5	-1,762.0	2,009.2	1,872.9	136.32	14.739	
14,600.0	7,535.0	7,525.0	7,525.0	124.9	13.1	90.00	-8,301.5	-1,762.0	1,936.9	1,798.8	138.06	14.029	
14,672.4	7,535.0	7,525.0	7,525.0	126.2	13.1	90.00	-8,301.5	-1,762.0	1,886.1	1,746.7	139.33	13.537	
14,672.9	7,535.0	7,525.0	7,525.0	126.2	13.1	90.00	-8,301.5	-1,762.0	1,885.7	1,746.4	139.33	13.534 CC, ES, SF	



# Cathedral Energy Services

## Anticollision Report



<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 4A-34H-P266 - 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	1,340.8	1,334.3	0.0	3.1	-169.72	-9,493.0	-1,720.9	9,736.5							
100.0	100.0	1,439.6	1,431.9	0.2	3.4	-169.77	-9,481.2	-1,711.5	9,723.0	9,720.2	2.78	3,492.213				
200.0	200.0	1,538.4	1,529.6	0.3	3.7	-169.81	-9,469.5	-1,702.1	9,709.5	9,706.4	3.16	3,075.738				
300.0	300.0	1,637.3	1,627.3	0.5	4.0	-169.85	-9,457.7	-1,692.7	9,696.1	9,692.5	3.53	2,746.959				
400.0	400.0	1,736.1	1,725.0	0.7	4.3	-169.90	-9,445.9	-1,683.3	9,682.6	9,678.7	3.90	2,480.879				
500.0	500.0	1,834.9	1,822.6	0.8	4.6	-169.94	-9,434.1	-1,673.9	9,669.2	9,664.9	4.28	2,261.162				
600.0	600.0	1,933.8	1,920.3	1.0	4.9	-169.98	-9,422.3	-1,664.5	9,655.7	9,651.1	4.65	2,076.689				
700.0	700.0	2,032.6	2,018.0	1.2	5.2	-170.03	-9,410.5	-1,655.1	9,642.3	9,637.3	5.02	1,919.626				
800.0	800.0	2,131.4	2,115.6	1.4	5.5	-170.07	-9,398.7	-1,645.7	9,628.9	9,623.5	5.40	1,784.300				
900.0	900.0	2,230.2	2,213.3	1.5	5.8	-170.11	-9,386.9	-1,636.3	9,615.5	9,609.7	5.77	1,666.498				
1,000.0	1,000.0	2,329.1	2,311.0	1.7	6.1	-170.16	-9,375.2	-1,626.9	9,602.0	9,595.9	6.14	1,563.029				
1,100.0	1,100.0	2,427.9	2,408.7	1.9	6.5	-170.20	-9,363.4	-1,617.5	9,588.6	9,582.1	6.52	1,471.434				
1,200.0	1,200.0	2,526.7	2,506.3	2.1	6.8	-118.13	-9,351.6	-1,608.0	9,575.6	9,568.5	7.10	1,348.398				
1,300.0	1,300.0	2,625.5	2,604.0	2.2	7.1	-118.29	-9,339.8	-1,598.6	9,563.5	9,556.0	7.50	1,275.412				
1,400.0	1,399.9	2,724.2	2,701.5	2.4	7.4	-118.46	-9,328.0	-1,589.2	9,552.1	9,544.2	7.90	1,209.427				
1,500.0	1,499.7	2,822.9	2,799.0	2.6	7.7	-118.63	-9,316.3	-1,579.9	9,541.6	9,533.3	8.30	1,149.262				
1,600.0	1,599.4	2,921.4	2,896.4	2.8	8.0	-118.80	-9,304.5	-1,570.5	9,532.0	9,523.3	8.71	1,093.959				
1,619.7	1,619.0	2,940.8	2,915.5	2.8	8.1	-118.83	-9,302.2	-1,568.6	9,530.2	9,521.4	8.79	1,083.596				
1,700.0	1,699.0	3,019.8	2,993.6	3.0	8.3	-118.91	-9,292.8	-1,561.1	9,522.9	9,513.8	9.13	1,043.342				
1,800.0	1,798.5	3,118.2	3,090.9	3.2	8.7	-119.00	-9,281.1	-1,551.7	9,513.9	9,504.4	9.55	996.739				
1,900.0	1,898.1	3,216.6	3,188.1	3.4	9.0	-119.09	-9,269.3	-1,542.4	9,504.9	9,494.9	9.97	953.714				
2,000.0	1,997.7	3,315.0	3,285.4	3.6	9.3	-119.18	-9,257.6	-1,533.0	9,495.9	9,485.5	10.39	913.922				
2,100.0	2,097.3	3,413.4	3,382.6	3.9	9.6	-119.27	-9,245.9	-1,523.6	9,487.0	9,476.2	10.82	877.049				
2,200.0	2,196.9	3,511.8	3,479.9	4.1	9.9	-119.37	-9,234.1	-1,514.3	9,478.1	9,466.8	11.25	842.813				
2,300.0	2,296.5	3,610.2	3,577.1	4.3	10.2	-119.46	-9,222.4	-1,504.9	9,469.2	9,457.5	11.68	810.961				
2,400.0	2,396.1	3,708.6	3,674.4	4.5	10.5	-119.55	-9,210.6	-1,495.5	9,460.3	9,448.2	12.11	781.270				
2,500.0	2,495.7	3,807.0	3,771.6	4.7	10.8	-119.64	-9,198.9	-1,486.2	9,451.5	9,438.9	12.54	753.537				
2,600.0	2,595.3	3,905.4	3,868.9	5.0	11.2	-119.74	-9,187.2	-1,476.8	9,442.7	9,429.7	12.98	727.586				
2,700.0	2,694.8	4,003.8	3,966.1	5.2	11.5	-119.83	-9,175.4	-1,467.4	9,433.9	9,420.4	13.41	703.257				
2,800.0	2,794.4	4,102.2	4,063.4	5.4	11.8	-119.92	-9,163.7	-1,458.1	9,425.1	9,411.2	13.85	680.409				
2,900.0	2,894.0	4,200.6	4,160.6	5.6	12.1	-120.02	-9,152.0	-1,448.7	9,416.4	9,402.1	14.29	658.915				
3,000.0	2,993.6	4,299.0	4,257.9	5.9	12.4	-120.11	-9,140.2	-1,439.3	9,407.6	9,392.9	14.73	638.663				
3,100.0	3,093.2	4,397.4	4,355.1	6.1	12.7	-120.21	-9,128.5	-1,430.0	9,399.0	9,383.8	15.17	619.549				
3,200.0	3,192.8	4,495.8	4,452.4	6.3	13.0	-120.30	-9,116.8	-1,420.6	9,390.3	9,374.7	15.61	601.485				
3,300.0	3,292.4	4,594.2	4,549.6	6.5	13.4	-120.39	-9,105.0	-1,411.2	9,381.6	9,365.6	16.05	584.387				
3,400.0	3,392.0	4,692.6	4,646.9	6.8	13.7	-120.49	-9,093.3	-1,401.9	9,373.0	9,356.5	16.50	568.182				
3,500.0	3,491.6	4,791.0	4,744.1	7.0	14.0	-120.58	-9,081.6	-1,392.5	9,364.5	9,347.5	16.94	552.804				
3,600.0	3,591.1	4,889.4	4,841.4	7.2	14.3	-120.68	-9,069.8	-1,383.1	9,355.9	9,338.5	17.38	538.191				
3,700.0	3,690.7	4,987.8	4,938.6	7.5	14.6	-120.77	-9,058.1	-1,373.8	9,347.4	9,329.5	17.83	524.290				
3,800.0	3,790.3	5,086.2	5,035.9	7.7	14.9	-120.87	-9,046.4	-1,364.4	9,338.8	9,320.6	18.27	511.049				
3,900.0	3,889.9	5,184.6	5,133.1	7.9	15.2	-120.96	-9,034.6	-1,355.0	9,330.4	9,311.6	18.72	498.425				
4,000.0	3,989.5	5,283.0	5,230.4	8.2	15.6	-121.06	-9,022.9	-1,345.7	9,321.9	9,302.7	19.17	486.375				
4,100.0	4,089.1	5,381.4	5,327.6	8.4	15.9	-121.15	-9,011.2	-1,336.3	9,313.5	9,293.9	19.61	474.863				
4,200.0	4,188.7	5,479.8	5,424.9	8.6	16.2	-121.25	-8,999.4	-1,326.9	9,305.1	9,285.0	20.06	463.852				
4,300.0	4,288.3	5,578.2	5,522.1	8.9	16.5	-121.34	-8,987.7	-1,317.6	9,296.7	9,276.2	20.51	453.313				
4,400.0	4,387.9	5,676.6	5,619.4	9.1	16.8	-121.44	-8,975.9	-1,308.2	9,288.4	9,267.4	20.96	443.214				
4,500.0	4,487.4	5,775.0	5,716.6	9.3	17.1	-121.54	-8,964.2	-1,298.8	9,280.0	9,258.6	21.41	433.530				
4,600.0	4,587.0	5,873.4	5,813.9	9.6	17.4	-121.63	-8,952.5	-1,289.5	9,271.7	9,249.9	21.86	424.237				
4,700.0	4,686.6	5,971.9	5,911.1	9.8	17.7	-121.73	-8,940.7	-1,280.1	9,263.5	9,241.2	22.30	415.310				
4,800.0	4,786.2	6,070.3	6,008.4	10.0	18.1	-121.83	-8,929.0	-1,270.7	9,255.2	9,232.5	22.76	406.729				
4,900.0	4,885.8	6,168.7	6,105.6	10.3	18.4	-121.92	-8,917.3	-1,261.4	9,247.0	9,223.8	23.21	398.475				
5,000.0	4,985.4	6,267.1	6,202.9	10.5	18.7	-122.02	-8,905.5	-1,252.0	9,238.8	9,215.2	23.66	390.530				

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 4A-34H-P266 - 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	5,085.0	6,365.5	6,300.1	10.7	19.0	-122.12	-8,893.8	-1,242.6	9,230.7	9,206.5	24.11	382.876		
5,200.0	5,184.6	6,463.9	6,397.4	11.0	19.3	-122.22	-8,882.1	-1,233.3	9,222.5	9,198.0	24.56	375.498		
5,300.0	5,284.2	6,562.3	6,494.6	11.2	19.6	-122.31	-8,870.3	-1,223.9	9,214.4	9,189.4	25.01	368.382		
5,400.0	5,383.7	6,660.7	6,591.9	11.4	19.9	-122.41	-8,858.6	-1,214.5	9,206.3	9,180.9	25.47	361.514		
5,500.0	5,483.3	6,759.1	6,689.1	11.7	20.3	-122.51	-8,846.9	-1,205.2	9,198.3	9,172.4	25.92	354.881		
5,600.0	5,582.9	6,857.5	6,786.4	11.9	20.6	-122.61	-8,835.1	-1,195.8	9,190.2	9,163.9	26.37	348.472		
5,700.0	5,682.5	6,955.9	6,883.6	12.1	20.9	-122.71	-8,823.4	-1,186.4	9,182.3	9,155.4	26.83	342.276		
5,800.0	5,782.1	7,000.0	6,927.2	12.4	21.0	-122.75	-8,818.1	-1,182.4	9,174.5	9,147.3	27.15	337.960		
5,900.0	5,881.7	7,050.0	6,976.9	12.6	21.1	-122.78	-8,812.3	-1,181.2	9,167.5	9,140.0	27.42	334.308		
6,000.0	5,981.3	7,050.0	6,976.9	12.8	21.1	-122.78	-8,812.3	-1,181.2	9,161.2	9,133.5	27.64	331.441		
6,100.0	6,080.9	7,100.0	7,026.4	13.1	21.2	-122.78	-8,806.8	-1,184.3	9,155.6	9,127.7	27.87	328.541		
6,200.0	6,180.5	7,125.8	7,051.9	13.3	21.2	-122.77	-8,804.0	-1,187.5	9,150.8	9,122.7	28.07	326.042		
6,300.0	6,280.0	7,150.0	7,075.6	13.5	21.2	-122.75	-8,801.5	-1,191.7	9,146.8	9,118.5	28.27	323.600		
6,400.0	6,379.6	7,200.0	7,123.9	13.8	21.2	-122.70	-8,796.5	-1,203.4	9,143.6	9,115.2	28.40	321.940		
6,500.0	6,479.2	7,200.0	7,123.9	14.0	21.2	-122.70	-8,796.5	-1,203.4	9,141.1	9,112.5	28.62	319.396		
6,600.0	6,578.8	7,250.0	7,171.1	14.2	21.2	-122.62	-8,791.9	-1,219.3	9,139.4	9,110.7	28.72	318.266		
6,700.0	6,678.4	7,269.8	7,189.4	14.5	21.1	-122.58	-8,790.1	-1,226.7	9,138.6	9,109.7	28.87	316.503		
6,760.4	6,738.5	7,300.0	7,216.7	14.6	21.1	-122.52	-8,787.6	-1,239.2	9,138.5	9,109.6	28.91	316.085		
6,800.0	6,778.0	7,300.0	7,216.7	14.7	21.1	-122.52	-8,787.6	-1,239.2	9,138.5	9,109.5	29.00	315.142		
6,900.0	6,877.6	7,322.1	7,236.3	14.9	21.0	-122.46	-8,785.9	-1,249.3	9,139.3	9,110.2	29.14	313.663		
6,953.0	6,930.4	7,350.0	7,260.5	15.1	21.0	-122.39	-8,783.8	-1,263.1	9,140.1	9,110.9	29.15	313.524		
7,000.0	6,977.2	7,350.0	7,260.5	15.1	21.0	-63.82	-8,783.8	-1,263.1	9,139.0	9,109.8	29.20	312.943		
7,050.0	7,027.0	7,350.0	7,260.5	15.2	21.0	-24.97	-8,783.8	-1,263.1	9,133.9	9,104.8	29.08	314.049		
7,100.0	7,076.2	7,369.9	7,277.3	15.2	20.9	-12.11	-8,782.4	-1,273.6	9,124.7	9,096.0	28.71	317.836		
7,150.0	7,124.6	7,380.8	7,286.3	15.3	20.9	-6.31	-8,781.7	-1,279.6	9,111.6	9,083.4	28.20	323.108		
7,200.0	7,171.8	7,400.0	7,302.0	15.2	20.8	-2.92	-8,780.5	-1,290.7	9,094.5	9,067.0	27.50	330.746		
7,250.0	7,217.4	7,400.0	7,302.0	15.2	20.8	-0.67	-8,780.5	-1,290.7	9,073.6	9,046.9	26.72	339.629		
7,300.0	7,261.1	7,400.0	7,302.0	15.2	20.8	1.04	-8,780.5	-1,290.7	9,049.1	9,023.3	25.79	350.812		
7,350.0	7,302.5	7,400.0	7,302.0	15.2	20.8	2.49	-8,780.5	-1,290.7	9,021.1	8,996.3	24.75	364.503		
7,400.0	7,341.3	7,425.2	7,322.0	15.1	20.8	3.98	-8,779.0	-1,305.9	8,989.7	8,966.1	23.54	381.860		
7,450.0	7,377.2	7,450.0	7,341.1	15.1	20.7	5.52	-8,777.6	-1,321.8	8,955.3	8,933.0	22.30	401.664		
7,500.0	7,410.0	7,450.0	7,341.1	15.1	20.7	7.06	-8,777.6	-1,321.8	8,917.9	8,896.9	21.09	422.924		
7,550.0	7,439.4	7,450.0	7,341.1	15.2	20.7	8.86	-8,777.6	-1,321.8	8,878.0	8,858.1	19.92	445.604		
7,600.0	7,465.2	7,450.0	7,341.1	15.2	20.7	11.11	-8,777.6	-1,321.8	8,835.8	8,816.8	18.91	467.143		
7,650.0	7,487.1	7,450.0	7,341.1	15.3	20.7	14.10	-8,777.6	-1,321.8	8,791.5	8,773.2	18.24	481.941		
7,700.0	7,505.1	7,450.0	7,341.1	15.5	20.7	18.37	-8,777.6	-1,321.8	8,745.5	8,727.3	18.23	479.839		
7,750.0	7,518.9	7,450.0	7,341.1	15.7	20.7	24.96	-8,777.6	-1,321.8	8,698.1	8,678.7	19.43	447.700		
7,800.0	7,528.5	7,450.0	7,341.1	15.9	20.7	36.16	-8,777.6	-1,321.8	8,649.7	8,626.9	22.77	379.856		
7,850.0	7,533.9	7,450.0	7,341.1	16.2	20.7	56.65	-8,777.6	-1,321.8	8,600.5	8,571.6	28.95	297.036		
7,886.2	7,535.0	7,450.0	7,341.1	16.4	20.7	79.58	-8,777.6	-1,321.8	8,564.7	8,531.7	33.07	259.004		
7,900.0	7,535.0	7,450.0	7,341.1	16.5	20.7	79.58	-8,777.6	-1,321.8	8,551.1	8,517.9	33.17	257.802		
8,000.0	7,535.0	7,450.0	7,341.1	17.2	20.7	79.58	-8,777.6	-1,321.8	8,452.1	8,418.1	33.99	248.654		
8,100.0	7,535.0	7,450.0	7,341.1	18.1	20.7	79.58	-8,777.6	-1,321.8	8,353.1	8,318.1	34.95	238.967		
8,200.0	7,535.0	7,450.0	7,341.1	19.1	20.7	79.58	-8,777.6	-1,321.8	8,254.1	8,218.1	36.04	229.047		
8,300.0	7,535.0	7,450.0	7,341.1	20.2	20.7	79.58	-8,777.6	-1,321.8	8,155.2	8,118.0	37.22	219.130		
8,400.0	7,535.0	7,450.0	7,341.1	21.4	20.7	79.58	-8,777.6	-1,321.8	8,056.3	8,017.8	38.48	209.386		
8,500.0	7,535.0	7,450.0	7,341.1	22.7	20.7	79.58	-8,777.6	-1,321.8	7,957.4	7,917.6	39.80	199.929		
8,600.0	7,535.0	7,450.0	7,341.1	24.0	20.7	79.58	-8,777.6	-1,321.8	7,858.6	7,817.4	41.18	190.830		
8,700.0	7,535.0	7,450.0	7,341.1	25.4	20.7	79.58	-8,777.6	-1,321.8	7,759.8	7,717.2	42.61	182.130		
8,800.0	7,535.0	7,450.0	7,341.1	26.9	20.7	79.58	-8,777.6	-1,321.8	7,661.0	7,616.9	44.07	173.846		
8,900.0	7,535.0	7,450.0	7,341.1	28.3	20.7	79.58	-8,777.6	-1,321.8	7,562.2	7,516.7	45.56	165.980		
9,000.0	7,535.0	7,450.0	7,341.1	29.8	20.7	79.58	-8,777.6	-1,321.8	7,463.5	7,416.4	47.08	158.526		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S34-T2N-R66W (McConahay) - McConahay 4A-34H-P266 - 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	7,535.0	7,450.0	7,341.1	31.3	20.7	79.58	-8,777.6	-1,321.8	7,364.8	7,316.2	48.62	151.469		
9,200.0	7,535.0	7,431.1	7,326.6	32.9	20.7	78.79	-8,778.6	-1,309.6	7,266.1	7,216.1	50.03	145.245		
9,300.0	7,535.0	7,429.1	7,325.1	34.4	20.8	78.71	-8,778.7	-1,308.3	7,167.5	7,115.9	51.58	138.953		
9,400.0	7,535.0	7,427.1	7,323.5	36.0	20.8	78.62	-8,778.8	-1,307.1	7,068.9	7,015.7	53.15	132.998		
9,500.0	7,535.0	7,425.1	7,321.9	37.6	20.8	78.53	-8,779.0	-1,305.8	6,970.3	6,915.6	54.73	127.359		
9,600.0	7,535.0	7,423.1	7,320.4	39.2	20.8	78.45	-8,779.1	-1,304.6	6,871.8	6,815.5	56.32	122.017		
9,700.0	7,535.0	7,421.0	7,318.8	40.9	20.8	78.36	-8,779.2	-1,303.3	6,773.3	6,715.4	57.92	116.952		
9,800.0	7,535.0	7,419.0	7,317.1	42.5	20.8	78.27	-8,779.3	-1,302.0	6,674.9	6,615.4	59.52	112.147		
9,900.0	7,535.0	7,400.0	7,302.0	44.1	20.8	77.44	-8,780.5	-1,290.7	6,576.6	6,515.6	60.94	107.925		
10,000.0	7,535.0	7,400.0	7,302.0	45.8	20.8	77.44	-8,780.5	-1,290.7	6,478.2	6,415.6	62.57	103.535		
10,100.0	7,535.0	7,400.0	7,302.0	47.4	20.8	77.44	-8,780.5	-1,290.7	6,379.9	6,315.7	64.21	99.360		
10,200.0	7,535.0	7,400.0	7,302.0	49.1	20.8	77.44	-8,780.5	-1,290.7	6,281.7	6,215.8	65.85	95.387		
10,300.0	7,535.0	7,400.0	7,302.0	50.8	20.8	77.44	-8,780.5	-1,290.7	6,183.5	6,115.9	67.50	91.602		
10,400.0	7,535.0	7,400.0	7,302.0	52.5	20.8	77.44	-8,780.5	-1,290.7	6,085.3	6,016.2	69.16	87.992		
10,500.0	7,535.0	7,400.0	7,302.0	54.1	20.8	77.44	-8,780.5	-1,290.7	5,987.2	5,916.4	70.81	84.548		
10,600.0	7,535.0	7,400.0	7,302.0	55.8	20.8	77.44	-8,780.5	-1,290.7	5,889.2	5,816.7	72.48	81.258		
10,700.0	7,535.0	7,400.0	7,302.0	57.5	20.8	77.44	-8,780.5	-1,290.7	5,791.3	5,717.1	74.14	78.113		
10,800.0	7,535.0	7,400.0	7,302.0	59.2	20.8	77.44	-8,780.5	-1,290.7	5,693.4	5,617.6	75.81	75.104		
10,900.0	7,535.0	7,400.0	7,302.0	60.9	20.8	77.44	-8,780.5	-1,290.7	5,595.6	5,518.1	77.48	72.223		
11,000.0	7,535.0	7,400.0	7,302.0	62.6	20.8	77.44	-8,780.5	-1,290.7	5,497.9	5,418.7	79.15	69.462		
11,100.0	7,535.0	7,400.0	7,302.0	64.3	20.8	77.44	-8,780.5	-1,290.7	5,400.2	5,319.4	80.82	66.815		
11,200.0	7,535.0	7,400.0	7,302.0	66.0	20.8	77.44	-8,780.5	-1,290.7	5,302.7	5,220.2	82.50	64.275		
11,300.0	7,535.0	7,400.0	7,302.0	67.7	20.8	77.44	-8,780.5	-1,290.7	5,205.2	5,121.0	84.18	61.836		
11,400.0	7,535.0	7,400.0	7,302.0	69.4	20.8	77.44	-8,780.5	-1,290.7	5,107.8	5,022.0	85.86	59.492		
11,496.2	7,535.0	7,381.5	7,286.9	71.1	20.9	76.60	-8,781.7	-1,280.0	5,014.2	4,927.0	87.16	57.529		
11,500.0	7,535.0	7,381.4	7,286.9	71.2	20.9	76.60	-8,781.7	-1,280.0	5,010.5	4,923.2	87.22	57.446		
11,600.0	7,535.0	7,379.0	7,284.9	72.9	20.9	76.49	-8,781.8	-1,278.6	4,913.3	4,824.4	88.86	55.295		
11,700.0	7,535.0	7,376.6	7,282.9	74.6	20.9	76.38	-8,782.0	-1,277.3	4,816.2	4,725.7	90.49	53.224		
11,800.0	7,535.0	7,374.2	7,280.9	76.3	20.9	76.27	-8,782.1	-1,276.0	4,719.3	4,627.1	92.12	51.228		
11,900.0	7,535.0	7,371.8	7,278.9	78.0	20.9	76.16	-8,782.3	-1,274.7	4,622.4	4,528.7	93.75	49.304		
12,000.0	7,535.0	7,369.4	7,276.9	79.7	20.9	76.05	-8,782.5	-1,273.3	4,525.7	4,430.4	95.38	47.448		
12,100.0	7,535.0	7,350.0	7,260.5	81.5	21.0	75.14	-8,783.8	-1,263.1	4,429.3	4,332.7	96.65	45.829		
12,200.0	7,535.0	7,350.0	7,260.5	83.2	21.0	75.14	-8,783.8	-1,263.1	4,332.9	4,234.5	98.32	44.068		
12,296.2	7,535.0	7,350.0	7,260.5	84.9	21.0	75.14	-8,783.8	-1,263.1	4,240.3	4,140.3	99.93	42.431		
12,300.0	7,535.0	7,350.0	7,260.5	84.9	21.0	75.07	-8,783.8	-1,263.1	4,236.6	4,136.6	99.99	42.372		
12,400.0	7,535.0	7,350.0	7,260.5	86.6	21.0	73.02	-8,783.8	-1,263.1	4,140.0	4,038.9	101.11	40.945		
12,492.9	7,535.0	7,350.0	7,260.5	88.3	21.0	70.61	-8,783.8	-1,263.1	4,049.7	3,948.1	101.63	39.848		
12,500.0	7,535.0	7,350.0	7,260.5	88.4	21.0	70.61	-8,783.8	-1,263.1	4,042.8	3,941.0	101.74	39.735		
12,600.0	7,535.0	7,350.0	7,260.5	90.1	21.0	70.61	-8,783.8	-1,263.1	3,945.3	3,842.0	103.38	38.163		
12,700.0	7,535.0	7,350.0	7,260.5	91.9	21.0	70.61	-8,783.8	-1,263.1	3,848.0	3,743.0	105.02	36.641		
12,800.0	7,535.0	7,350.0	7,260.5	93.6	21.0	70.61	-8,783.8	-1,263.1	3,750.8	3,644.2	106.66	35.167		
12,900.0	7,535.0	7,350.0	7,260.5	95.3	21.0	70.61	-8,783.8	-1,263.1	3,653.8	3,545.5	108.30	33.738		
13,000.0	7,535.0	7,350.0	7,260.5	97.1	21.0	70.61	-8,783.8	-1,263.1	3,557.0	3,447.0	109.94	32.354		
13,100.0	7,535.0	7,350.0	7,260.5	98.8	21.0	70.61	-8,783.8	-1,263.1	3,460.3	3,348.7	111.58	31.011		
13,200.0	7,535.0	7,350.0	7,260.5	100.5	21.0	70.61	-8,783.8	-1,263.1	3,363.8	3,250.6	113.22	29.710		
13,300.0	7,535.0	7,350.0	7,260.5	102.3	21.0	70.61	-8,783.8	-1,263.1	3,267.5	3,152.6	114.86	28.447		
13,400.0	7,535.0	7,350.0	7,260.5	104.0	21.0	70.61	-8,783.8	-1,263.1	3,171.5	3,055.0	116.51	27.221		
13,500.0	7,535.0	7,350.0	7,260.5	105.8	21.0	70.61	-8,783.8	-1,263.1	3,075.7	2,957.5	118.15	26.032		
13,600.0	7,535.0	7,350.0	7,260.5	107.5	21.0	70.61	-8,783.8	-1,263.1	2,980.2	2,860.4	119.79	24.877		
13,700.0	7,535.0	7,350.0	7,260.5	109.3	21.0	70.61	-8,783.8	-1,263.1	2,884.9	2,763.5	121.44	23.756		
13,800.0	7,535.0	7,350.0	7,260.5	111.0	21.0	70.61	-8,783.8	-1,263.1	2,790.1	2,667.0	123.08	22.668		
13,900.0	7,535.0	7,350.0	7,260.5	112.7	21.0	70.61	-8,783.8	-1,263.1	2,695.5	2,570.8	124.73	21.611		

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 Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

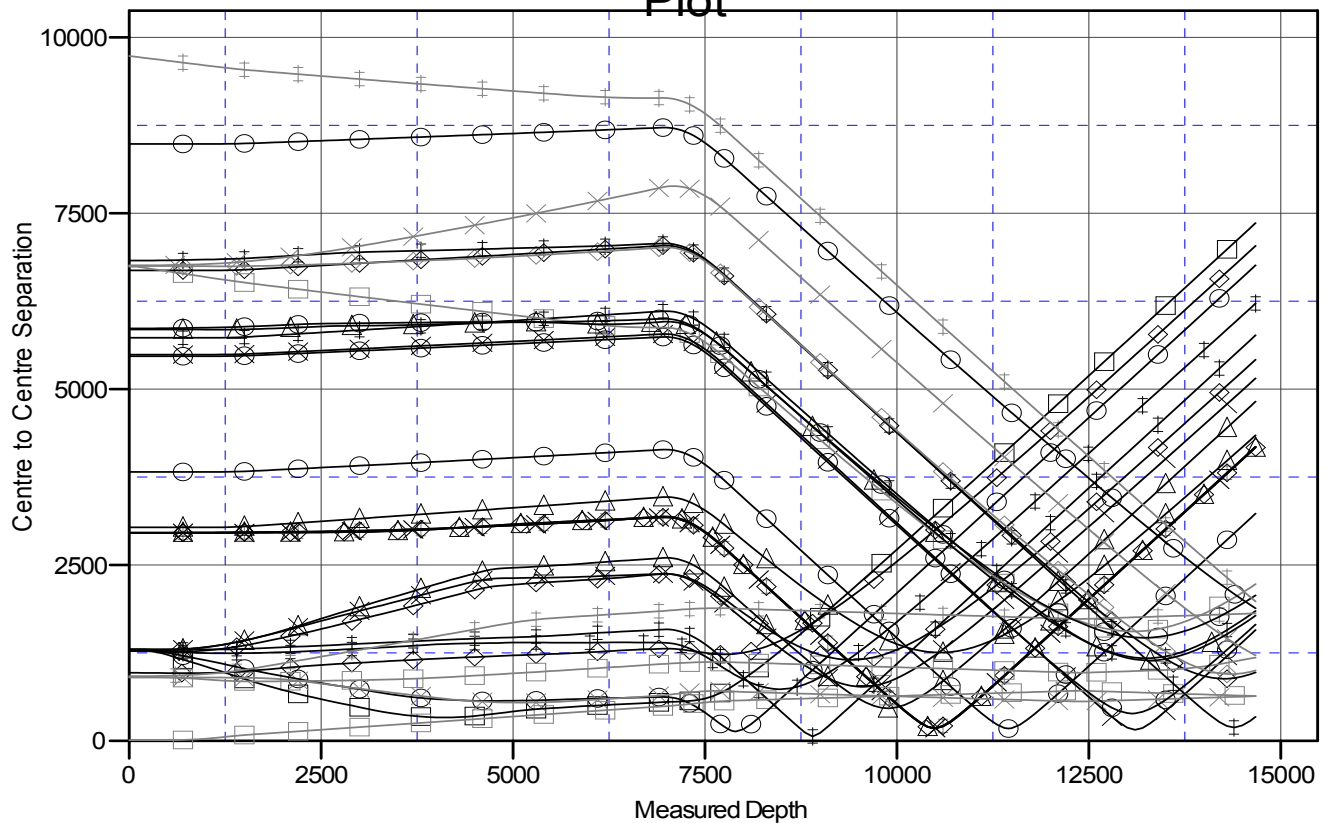
Offset Design										S34-T2N-R66W (McConahay) - McConahay 4A-34H-P266 - Hz - Plan #2				Offset Site Error:		0.0 ft		
Survey Program: 0-Geolink MWD																Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance											
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth 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					
14,000.0	7,535.0	7,332.9	7,245.8	114.5	21.0	69.54	-8,785.1	-1,254.5	2,601.3	2,475.7	125.53	20.722						
14,100.0	7,535.0	7,331.1	7,244.2	116.2	21.0	69.42	-8,785.2	-1,253.6	2,507.6	2,380.5	127.07	19.734						
14,200.0	7,535.0	7,329.2	7,242.5	118.0	21.0	69.30	-8,785.4	-1,252.7	2,414.4	2,285.8	128.60	18.774						
14,300.0	7,535.0	7,327.2	7,240.8	119.7	21.0	69.18	-8,785.5	-1,251.7	2,321.8	2,191.7	130.13	17.842						
14,400.0	7,535.0	7,325.3	7,239.1	121.5	21.0	69.05	-8,785.7	-1,250.8	2,229.8	2,098.1	131.66	16.937						
14,500.0	7,535.0	7,323.3	7,237.4	123.2	21.0	68.93	-8,785.8	-1,249.8	2,138.5	2,005.3	133.18	16.058						
14,600.0	7,535.0	7,321.3	7,235.6	124.9	21.0	68.80	-8,786.0	-1,248.9	2,048.0	1,913.4	134.69	15.206						
14,672.4	7,535.0	7,319.8	7,234.3	126.2	21.0	68.71	-8,786.1	-1,248.2	1,983.2	1,847.4	135.78	14.605						
14,672.9	7,535.0	7,319.8	7,234.3	126.2	21.0	68.71	-8,786.1	-1,248.2	1,982.7	1,846.9	135.79	14.601	CC, ES, SF					

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Rodman Bruntz 2B-26H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Reference Site:</b>	S26-T2N-R66W (Rodman Bruntz)	<b>MD Reference:</b>	WELL @ 5078.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Rodman Bruntz 2B-26H	<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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5078.0ft (Original Well Elev)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Rodman Bruntz 2B-26H  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.48°

## Ladder Plot



### LEGEND

RODMAN BRUNTZ 0-2-26 (EXISTING), ENCANA WELL, SURVEYS V0	Rodman Bruntz 2E-26H, Hz, Plan #1
RODMAN BRUNTZ 0-4-26 (EXISTING), ENCANA WELL, SURVEYS V0	SHAHER 12-35 (EXISTING), Existing V0
RODMAN BRUNTZ 11-26 (EXISTING), ENCANA WELL, SURVEYS V0	SHAHER 4-35A (EXISTING), Existing V0
RODMAN BRUNTZ 12-26 (EXISTING), ENCANA WELL, GYRO V0	McConahay 1B-34H-H266, Hz, Plan #1
RODMAN BRUNTZ 2-0-26 (EXISTING), ENCANA WELL, SURVEYS V0	McConahay 1C-34H-H266, Hz, Plan #1
RODMAN BRUNTZ 21-26 (EXISTING), ENCANA WELL, GYRO V0	McConahay 1D-34H-H266, Hz, Plan #1
Rodman Bruntz 22-26, DD, SURVEYS V0	McConahay 41-34 (EXISTING), Existing V0
RODMAN BRUNTZ 2-4-26 (EXISTING), ENCANA WELL, SURVEYS V0	McConahay 43-34 (EXISTING), Existing V0
Rodman Bruntz 2A-26H, DD, Plan #2 V0	McConahay 4A-34H-P266, Hz, Plan #1
Rodman Bruntz 2C-26H, Hz, Plan #1 V0	McConahay 1A-34H, Hz, Hz V0