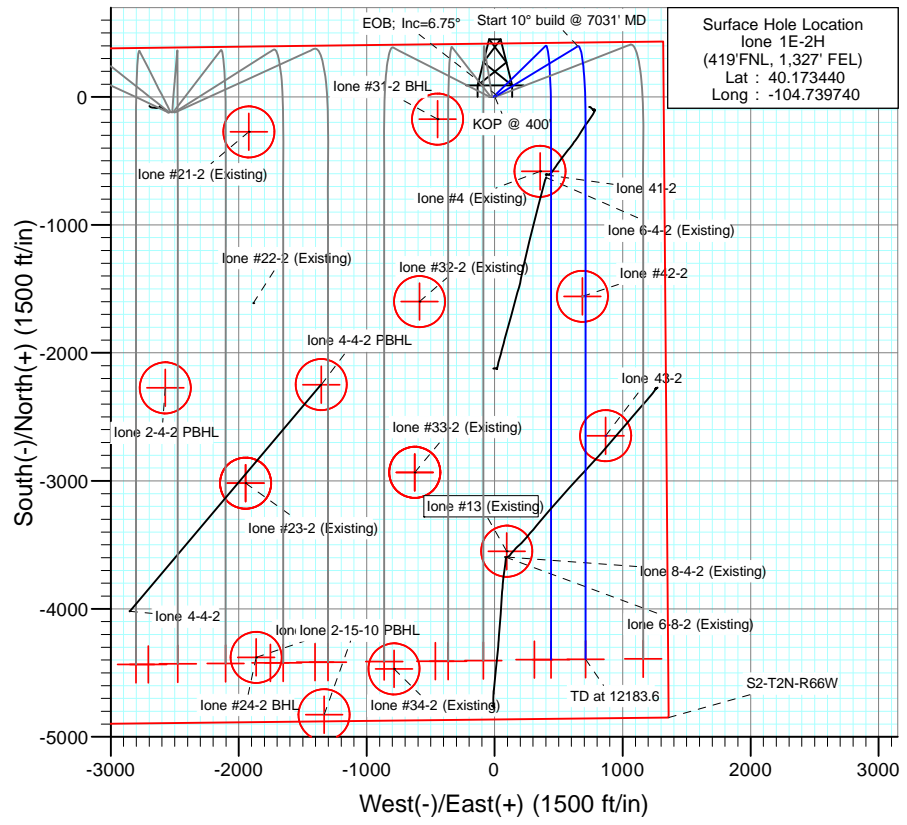


**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N-/S	+E-/W	Dleg	TFace	VSEct	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	737.6	6.75	58.62	736.8	10.3	17.0	2.00	58.62	-7.5	
4	7031.5	6.75	58.62	6987.0	395.7	648.8	0.00	0.00	-287.1	
5	7966.6	90.00	180.00	7592.0	-176.2	709.9	10.00	121.20	287.2	
6	12183.6	90.00	180.00	7592.0	-4393.2	709.9	0.00	0.00	4450.2	Ione 1E-2H PBHL (460' FSL, 650' FEL)



**DESIGN TARGET DETAILS**

Name	+N-/S	+E-/W	Northing	Easting	Latitude	Longitude
Ione 1E-2H PBHL (460' FSL, 650' FEL)	-4393.2	709.9	1302553.46	3213199.26	40.161380	-104.737200

**FORMATION TOP DETAILS**

TVDPPath	MDPath	Formation
4522.0	4549.2	Sussex
4809.0	4838.2	Sussex Marker
5279.0	5311.5	Shannon
6530.0	6571.2	Teepee Buttes
7198.0	7246.5	Sharon Springs
7273.0	7327.9	Niobrara
7314.0	7374.8	B Chalk
7541.0	7722.4	Ft. Hayes
7587.0	7890.6	Codell

**M** Azimuths to True North  
 Magnetic North: 8.63°

Magnetic Field  
 Strength: 52916.9snT  
 Dip Angle: 66.84°  
 Date: 8/8/2012  
 Model: IGRF200510

Plan #1  
 Ione 1E-2H  
 125XXX, SC  
 KB=13' @ 5091.0ft (Original Well Elev)  
 Ground Elevation @ 5078.0  
 North American Datum 1983  
 Well Ione 1E-2H, True North

Vertical Section at 170.82° (1200 ft/in)

# Cathedral Energy Services

## Planning Report

<b>Database:</b> USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b> Well lone 1E-2H
<b>Company:</b> EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b> KB=13' @ 5091.0ft (Original Well Elev)
<b>Project:</b> DJ Wattenberg	<b>MD Reference:</b> KB=13' @ 5091.0ft (Original Well Elev)
<b>Site:</b> NWNE S2-T2N-R66W (lone)	<b>North Reference:</b> True
<b>Well:</b> lone 1E-2H	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Wellbore:</b> HZ	
<b>Design:</b> Plan #1	

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

<b>Site</b> NWNE S2-T2N-R66W (lone)					
<b>Site Position:</b>		<b>Northing:</b>	1,306,798.50 ft	<b>Latitude:</b>	40.173110
<b>From:</b> Lat/Long		<b>Easting:</b>	3,209,901.52 ft	<b>Longitude:</b>	-104.748870
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.49 °

<b>Well</b> lone 1E-2H						
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,306,940.41 ft	<b>Latitude:</b>	40.173440
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	3,212,451.71 ft	<b>Longitude:</b>	-104.739740
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	5,078.0 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</b>
	IGRF200510	8/8/2012	(°)	(°)	(nT)
			8.63	66.84	52,917

<b>Design</b> Plan #1				
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	170.82

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
737.6	6.75	58.62	736.8	10.3	17.0	2.00	2.00	0.00	58.62	
7,031.5	6.75	58.62	6,987.0	395.7	648.8	0.00	0.00	0.00	0.00	
7,966.6	90.00	180.00	7,592.0	-176.2	709.9	10.00	8.90	12.98	121.20	
12,183.6	90.00	180.00	7,592.0	-4,393.2	709.9	0.00	0.00	0.00	0.00	lone 1E-2H PBHL (46)

# Cathedral Energy Services

## Planning Report

**Database:** USA EDM 5000 Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** DJ Wattenberg  
**Site:** NWNE S2-T2N-R66W (Ione)  
**Well:** Ione 1E-2H  
**Wellbore:** HZ  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Ione 1E-2H  
**TVD Reference:** KB=13' @ 5091.0ft (Original Well Elev)  
**MD Reference:** KB=13' @ 5091.0ft (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	KOP @ 400'
500.0	2.00	58.62	500.0	0.9	1.5	-0.7	2.00	2.00	
600.0	4.00	58.62	599.8	3.6	6.0	-2.6	2.00	2.00	
700.0	6.00	58.62	699.5	8.2	13.4	-5.9	2.00	2.00	
737.6	6.75	58.62	736.8	10.3	17.0	-7.5	2.00	2.00	EOB; Inc=6.75°
800.0	6.75	58.62	798.8	14.2	23.2	-10.3	0.00	0.00	
900.0	6.75	58.62	898.1	20.3	33.3	-14.7	0.00	0.00	
1,000.0	6.75	58.62	997.4	26.4	43.3	-19.2	0.00	0.00	
1,100.0	6.75	58.62	1,096.7	32.5	53.3	-23.6	0.00	0.00	
1,200.0	6.75	58.62	1,196.0	38.7	63.4	-28.1	0.00	0.00	
1,300.0	6.75	58.62	1,295.3	44.8	73.4	-32.5	0.00	0.00	
1,400.0	6.75	58.62	1,394.6	50.9	83.5	-36.9	0.00	0.00	
1,500.0	6.75	58.62	1,493.9	57.0	93.5	-41.4	0.00	0.00	
1,600.0	6.75	58.62	1,593.2	63.1	103.5	-45.8	0.00	0.00	
1,700.0	6.75	58.62	1,692.5	69.3	113.6	-50.3	0.00	0.00	
1,800.0	6.75	58.62	1,791.8	75.4	123.6	-54.7	0.00	0.00	
1,900.0	6.75	58.62	1,891.2	81.5	133.6	-59.2	0.00	0.00	
2,000.0	6.75	58.62	1,990.5	87.6	143.7	-63.6	0.00	0.00	
2,100.0	6.75	58.62	2,089.8	93.8	153.7	-68.0	0.00	0.00	
2,200.0	6.75	58.62	2,189.1	99.9	163.8	-72.5	0.00	0.00	
2,300.0	6.75	58.62	2,288.4	106.0	173.8	-76.9	0.00	0.00	
2,400.0	6.75	58.62	2,387.7	112.1	183.8	-81.4	0.00	0.00	
2,500.0	6.75	58.62	2,487.0	118.2	193.9	-85.8	0.00	0.00	
2,600.0	6.75	58.62	2,586.3	124.4	203.9	-90.2	0.00	0.00	
2,700.0	6.75	58.62	2,685.6	130.5	214.0	-94.7	0.00	0.00	
2,800.0	6.75	58.62	2,784.9	136.6	224.0	-99.1	0.00	0.00	
2,900.0	6.75	58.62	2,884.2	142.7	234.0	-103.6	0.00	0.00	
3,000.0	6.75	58.62	2,983.5	148.9	244.1	-108.0	0.00	0.00	
3,100.0	6.75	58.62	3,082.8	155.0	254.1	-112.5	0.00	0.00	
3,200.0	6.75	58.62	3,182.1	161.1	264.1	-116.9	0.00	0.00	
3,300.0	6.75	58.62	3,281.4	167.2	274.2	-121.3	0.00	0.00	
3,400.0	6.75	58.62	3,380.8	173.4	284.2	-125.8	0.00	0.00	
3,500.0	6.75	58.62	3,480.1	179.5	294.3	-130.2	0.00	0.00	
3,600.0	6.75	58.62	3,579.4	185.6	304.3	-134.7	0.00	0.00	
3,700.0	6.75	58.62	3,678.7	191.7	314.3	-139.1	0.00	0.00	
3,800.0	6.75	58.62	3,778.0	197.8	324.4	-143.6	0.00	0.00	
3,900.0	6.75	58.62	3,877.3	204.0	334.4	-148.0	0.00	0.00	
4,000.0	6.75	58.62	3,976.6	210.1	344.4	-152.4	0.00	0.00	
4,100.0	6.75	58.62	4,075.9	216.2	354.5	-156.9	0.00	0.00	
4,200.0	6.75	58.62	4,175.2	222.3	364.5	-161.3	0.00	0.00	
4,300.0	6.75	58.62	4,274.5	228.5	374.6	-165.8	0.00	0.00	
4,400.0	6.75	58.62	4,373.8	234.6	384.6	-170.2	0.00	0.00	
4,500.0	6.75	58.62	4,473.1	240.7	394.6	-174.7	0.00	0.00	
4,549.2	6.75	58.62	4,522.0	243.7	399.6	-176.8	0.00	0.00	Sussex
4,600.0	6.75	58.62	4,572.4	246.8	404.7	-179.1	0.00	0.00	
4,700.0	6.75	58.62	4,671.7	252.9	414.7	-183.5	0.00	0.00	
4,800.0	6.75	58.62	4,771.0	259.1	424.8	-188.0	0.00	0.00	
4,838.2	6.75	58.62	4,809.0	261.4	428.6	-189.7	0.00	0.00	Sussex Marker

# Cathedral Energy Services

## Planning Report

**Database:** USA EDM 5000 Multi Users DB  
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** DJ Wattenberg  
**Site:** NWNE S2-T2N-R66W (Ione)  
**Well:** Ione 1E-2H  
**Wellbore:** HZ  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Ione 1E-2H  
**TVD Reference:** KB=13' @ 5091.0ft (Original Well Elev)  
**MD Reference:** KB=13' @ 5091.0ft (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
4,900.0	6.75	58.62	4,870.3	265.2	434.8	-192.4	0.00	0.00	
5,000.0	6.75	58.62	4,969.7	271.3	444.8	-196.9	0.00	0.00	
5,100.0	6.75	58.62	5,069.0	277.4	454.9	-201.3	0.00	0.00	
5,200.0	6.75	58.62	5,168.3	283.6	464.9	-205.8	0.00	0.00	
5,300.0	6.75	58.62	5,267.6	289.7	474.9	-210.2	0.00	0.00	
5,311.5	6.75	58.62	5,279.0	290.4	476.1	-210.7	0.00	0.00	Shannon
5,400.0	6.75	58.62	5,366.9	295.8	485.0	-214.6	0.00	0.00	
5,500.0	6.75	58.62	5,466.2	301.9	495.0	-219.1	0.00	0.00	
5,600.0	6.75	58.62	5,565.5	308.0	505.1	-223.5	0.00	0.00	
5,700.0	6.75	58.62	5,664.8	314.2	515.1	-228.0	0.00	0.00	
5,800.0	6.75	58.62	5,764.1	320.3	525.1	-232.4	0.00	0.00	
5,900.0	6.75	58.62	5,863.4	326.4	535.2	-236.9	0.00	0.00	
6,000.0	6.75	58.62	5,962.7	332.5	545.2	-241.3	0.00	0.00	
6,100.0	6.75	58.62	6,062.0	338.7	555.3	-245.7	0.00	0.00	
6,200.0	6.75	58.62	6,161.3	344.8	565.3	-250.2	0.00	0.00	
6,300.0	6.75	58.62	6,260.6	350.9	575.3	-254.6	0.00	0.00	
6,400.0	6.75	58.62	6,359.9	357.0	585.4	-259.1	0.00	0.00	
6,500.0	6.75	58.62	6,459.2	363.1	595.4	-263.5	0.00	0.00	
6,571.2	6.75	58.62	6,530.0	367.5	602.6	-266.7	0.00	0.00	Teepee Buttes
6,600.0	6.75	58.62	6,558.6	369.3	605.4	-268.0	0.00	0.00	
6,700.0	6.75	58.62	6,657.9	375.4	615.5	-272.4	0.00	0.00	
6,800.0	6.75	58.62	6,757.2	381.5	625.5	-276.8	0.00	0.00	
6,900.0	6.75	58.62	6,856.5	387.6	635.6	-281.3	0.00	0.00	
7,000.0	6.75	58.62	6,955.8	393.8	645.6	-285.7	0.00	0.00	
7,031.5	6.75	58.62	6,987.0	395.7	648.8	-287.1	0.00	0.00	Start 10° build @ 7031' MD
7,100.0	6.67	120.14	7,055.2	395.8	655.6	-286.1	10.00	-0.13	
7,200.0	14.52	157.02	7,153.5	381.3	665.6	-270.2	10.00	7.85	
7,246.5	18.86	162.79	7,198.0	368.8	670.1	-257.1	10.00	9.35	Sharon Springs
7,300.0	24.01	166.88	7,247.8	349.9	675.1	-237.7	10.00	9.61	
7,327.9	26.72	168.41	7,273.0	338.2	677.7	-225.8	10.00	9.72	Niobrara
7,374.8	31.30	170.43	7,314.0	315.9	681.8	-203.0	10.00	9.78	B Chalk
7,400.0	33.78	171.31	7,335.3	302.5	684.0	-189.5	10.00	9.82	
7,500.0	43.65	173.92	7,413.2	240.5	691.8	-127.1	10.00	9.87	
7,600.0	53.56	175.72	7,479.2	165.9	698.5	-52.3	10.00	9.91	
7,700.0	63.49	177.11	7,531.4	80.9	703.8	32.4	10.00	9.93	
7,722.4	65.71	177.39	7,541.0	60.7	704.8	52.5	10.00	9.94	Ft. Hayes
7,800.0	73.43	178.28	7,568.1	-11.9	707.5	124.7	10.00	9.94	
7,890.6	82.44	179.23	7,587.0	-100.5	709.4	212.4	10.00	9.95	Codell
7,900.0	83.38	179.33	7,588.2	-109.8	709.5	221.5	10.00	9.95	
7,966.6	90.00	180.00	7,592.0	-176.2	709.9	287.2	10.00	9.95	Landing Pt @ 7966' MD; 90°
8,000.0	90.00	180.00	7,592.0	-209.6	709.9	320.2	0.00	0.00	
8,100.0	90.00	180.00	7,592.0	-309.6	709.9	418.9	0.00	0.00	
8,200.0	90.00	180.00	7,592.0	-409.6	709.9	517.6	0.00	0.00	
8,300.0	90.00	180.00	7,592.0	-509.6	709.9	616.3	0.00	0.00	
8,400.0	90.00	180.00	7,592.0	-609.6	709.9	715.0	0.00	0.00	
8,500.0	90.00	180.00	7,592.0	-709.6	709.9	813.8	0.00	0.00	
8,600.0	90.00	180.00	7,592.0	-809.6	709.9	912.5	0.00	0.00	
8,700.0	90.00	180.00	7,592.0	-909.6	709.9	1,011.2	0.00	0.00	
8,800.0	90.00	180.00	7,592.0	-1,009.6	709.9	1,109.9	0.00	0.00	
8,900.0	90.00	180.00	7,592.0	-1,109.6	709.9	1,208.6	0.00	0.00	
9,000.0	90.00	180.00	7,592.0	-1,209.6	709.9	1,307.4	0.00	0.00	
9,100.0	90.00	180.00	7,592.0	-1,309.6	709.9	1,406.1	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site:</b>	NWNE S2-T2N-R66W (lone)	<b>North Reference:</b>	True
<b>Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,200.0	90.00	180.00	7,592.0	-1,409.6	709.9	1,504.8	0.00	0.00	
9,300.0	90.00	180.00	7,592.0	-1,509.6	709.9	1,603.5	0.00	0.00	
9,400.0	90.00	180.00	7,592.0	-1,609.6	709.9	1,702.2	0.00	0.00	
9,500.0	90.00	180.00	7,592.0	-1,709.6	709.9	1,801.0	0.00	0.00	
9,600.0	90.00	180.00	7,592.0	-1,809.6	709.9	1,899.7	0.00	0.00	
9,700.0	90.00	180.00	7,592.0	-1,909.6	709.9	1,998.4	0.00	0.00	
9,800.0	90.00	180.00	7,592.0	-2,009.6	709.9	2,097.1	0.00	0.00	
9,900.0	90.00	180.00	7,592.0	-2,109.6	709.9	2,195.8	0.00	0.00	
10,000.0	90.00	180.00	7,592.0	-2,209.6	709.9	2,294.6	0.00	0.00	
10,100.0	90.00	180.00	7,592.0	-2,309.6	709.9	2,393.3	0.00	0.00	
10,200.0	90.00	180.00	7,592.0	-2,409.6	709.9	2,492.0	0.00	0.00	
10,300.0	90.00	180.00	7,592.0	-2,509.6	709.9	2,590.7	0.00	0.00	
10,400.0	90.00	180.00	7,592.0	-2,609.6	709.9	2,689.4	0.00	0.00	
10,500.0	90.00	180.00	7,592.0	-2,709.6	709.9	2,788.2	0.00	0.00	
10,600.0	90.00	180.00	7,592.0	-2,809.6	709.9	2,886.9	0.00	0.00	
10,700.0	90.00	180.00	7,592.0	-2,909.6	709.9	2,985.6	0.00	0.00	
10,800.0	90.00	180.00	7,592.0	-3,009.6	709.9	3,084.3	0.00	0.00	
10,900.0	90.00	180.00	7,592.0	-3,109.6	709.9	3,183.0	0.00	0.00	
11,000.0	90.00	180.00	7,592.0	-3,209.6	709.9	3,281.8	0.00	0.00	
11,100.0	90.00	180.00	7,592.0	-3,309.6	709.9	3,380.5	0.00	0.00	
11,200.0	90.00	180.00	7,592.0	-3,409.6	709.9	3,479.2	0.00	0.00	
11,300.0	90.00	180.00	7,592.0	-3,509.6	709.9	3,577.9	0.00	0.00	
11,400.0	90.00	180.00	7,592.0	-3,609.6	709.9	3,676.6	0.00	0.00	
11,500.0	90.00	180.00	7,592.0	-3,709.6	709.9	3,775.4	0.00	0.00	
11,600.0	90.00	180.00	7,592.0	-3,809.6	709.9	3,874.1	0.00	0.00	
11,700.0	90.00	180.00	7,592.0	-3,909.6	709.9	3,972.8	0.00	0.00	
11,800.0	90.00	180.00	7,592.0	-4,009.6	709.9	4,071.5	0.00	0.00	
11,900.0	90.00	180.00	7,592.0	-4,109.6	709.9	4,170.2	0.00	0.00	
12,000.0	90.00	180.00	7,592.0	-4,209.6	709.9	4,268.9	0.00	0.00	
12,100.0	90.00	180.00	7,592.0	-4,309.6	709.9	4,367.7	0.00	0.00	
12,183.6	90.00	180.00	7,592.0	-4,393.2	709.9	4,450.2	0.00	0.00	TD at 12183.6 - lone 1E-2H PBHL (460' FSL, 6'

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
lone 1E-2H PBHL (460'   - hit/miss target - Shape - Point	0.00	0.00	7,592.0	-4,393.2	709.9	1,302,553.46	3,213,199.26	40.161380	-104.737200

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site:</b>	NWNE S2-T2N-R66W (lone)	<b>North Reference:</b>	True
<b>Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,549.2	4,522.0	Sussex				
4,838.2	4,809.0	Sussex Marker				
5,311.5	5,279.0	Shannon				
6,571.2	6,530.0	Teepee Buttes				
7,246.5	7,198.0	Sharon Springs				
7,327.9	7,273.0	Niobrara				
7,374.8	7,314.0	B Chalk				
7,722.4	7,541.0	Ft. Hayes				
7,890.6	7,587.0	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
400.0	400.0	0.0	0.0	KOP @ 400'	
737.6	736.8	10.3	17.0	EOB; Inc=6.75°	
7,031.5	6,987.0	395.7	648.8	Start 10° build @ 7031' MD	
7,966.6	7,592.0	-176.2	709.9	Landing Pt @ 7966' MD; 90°	
12,183.6	7,592.0	-4,393.2	709.9	TD at 12183.6	

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

**DJ Wattenberg**

**NWNE S2-T2N-R66W (lone)**

**lone 1E-2H**

**HZ**

**Plan #1**

## **Anticollision Report**

**15 August, 2012**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<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 500.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>		<b>Date</b>	8/15/2012		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.0	12,183.6	Plan #1 (HZ)	MWD	Geolink MWD	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
NWNE S2-T2N-R66W (lone)						
lone #11-2 (Existing) - DD - Plan #1						Out of range
lone #12-2B (Existing) - DD - Plan #1						Out of range
lone #13 (Existing) - HZ - Plan #1						Out of range
lone #13-2 (Existing) - DD - Plan #1						Out of range
lone #21-2 (Existing) - DD - Plan #1						Out of range
lone #22-2 (Existing) - DD - Plan #1						Out of range
lone #23-2 (Existing) - DD - Plan #1						Out of range
lone #24-2 (Existing) - DD - Plan #1						Out of range
lone #3 (Existing) - DD - DD						Out of range
lone #3 (Existing) - DD - Plan #1						Out of range
lone #31-2 (Existing) - DD - Plan #1	400.0	405.0	479.2	477.8	353.330	CC, ES
lone #31-2 (Existing) - DD - Plan #1	700.0	704.5	494.6	492.2	206.348	SF
lone #32-2 (Existing) - DD - Plan #1						Out of range
lone #33-2 (Existing) - DD - Plan #1						Out of range
lone #34-2 (Existing) - DD - Plan #1						Out of range
lone #4 (Existing) - DD - Plan #1	8,371.8	7,600.0	355.8	324.6	11.394	CC, ES
lone #4 (Existing) - DD - Plan #1	8,400.0	7,600.0	357.0	325.4	11.313	SF
lone #42-2 - DD - Plan #1	9,348.7	7,585.0	24.7	-20.6	0.545	Level 1, CC, ES, SF
lone 1A-2H - HZ - Plan #1	200.0	200.0	39.1	38.5	59.934	CC, ES
lone 1A-2H - HZ - Plan #1	500.0	495.2	54.7	53.0	32.179	SF
lone 1B-2H - HZ - Plan #1	400.0	400.0	30.7	29.4	22.754	CC, ES
lone 1B-2H - HZ - Plan #1	500.0	499.3	33.3	31.6	19.585	SF
lone 1C-2H - HZ - Plan #1	400.0	400.0	19.6	18.2	14.480	CC, ES
lone 1C-2H - HZ - Plan #1	500.0	500.0	21.1	19.4	12.394	SF
lone 1D-2H - HZ - Plan #1	400.0	400.0	11.2	9.8	8.274	CC, ES
lone 1D-2H - HZ - Plan #1	12,183.6	11,899.9	380.2	264.1	3.274	SF
lone 1F-2H - HZ - Plan #1	200.0	200.0	8.4	7.7	12.843	CC, ES
lone 1F-2H - HZ - Plan #1	300.0	299.7	10.0	9.0	9.998	SF
lone 2A-2H - HZ - Plan #1						Out of range
lone 2B-2H - HZ - Plan #1						Out of range
lone 2C-2H - HZ - Plan #1						Out of range
lone 2D-2H - HZ - Plan #1						Out of range
lone 2E-2H - HZ - Plan #1						Out of range
lone 2F-2H - HZ - Plan #1						Out of range
lone 2G-2H - HZ - Plan #1						Out of range
lone 41-2 - DD - DD	7,877.8	7,659.8	45.7	15.7	1.526	CC, ES, SF
lone 43-2 - Wellbore #1 - Wellbore #1	10,437.6	7,547.0	156.7	100.1	2.768	CC, ES, SF
lone 4-4-2 - Wellbore #1 - Plan #1						Out of range
lone 6-4-2 (Existing) - Existing - Existing						Out of range
lone 6-8-2 (Existing) - Existing - Existing						Out of range
lone 8-4-2 (Existing) - Existing - Existing						Out of range

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 lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
NWNE S2-T2N-R66W (lone) - lone #31-2 (Existing) - DD - Plan #1															
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	5.0	5.0	0.0	0.0	-111.26	-173.7	-446.6	479.2						
100.0	100.0	105.0	105.0	0.2	0.2	-111.26	-173.7	-446.6	479.2	478.8	0.31	1,551.057			
200.0	200.0	205.0	205.0	0.3	0.3	-111.26	-173.7	-446.6	479.2	478.5	0.66	728.216			
300.0	300.0	305.0	305.0	0.5	0.5	-111.26	-173.7	-446.6	479.2	478.2	1.01	475.801			
400.0	400.0	405.0	405.0	0.7	0.7	-111.26	-173.7	-446.6	479.2	477.8	1.36	353.330 CC, ES			
500.0	500.0	505.0	505.0	0.9	0.9	-169.91	-173.7	-446.6	480.9	479.2	1.70	282.108			
600.0	599.8	604.8	604.8	1.0	1.0	-170.00	-173.7	-446.6	486.0	484.0	2.05	236.898			
700.0	699.5	704.5	704.5	1.3	1.2	-170.15	-173.7	-446.6	494.6	492.2	2.40	206.348 SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													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		
8,100.0	7,592.0	7,600.0	7,600.0	19.7	13.2	90.00	-581.4	354.1	447.7	419.3	28.48	15.722			
8,200.0	7,592.0	7,600.0	7,600.0	20.4	13.2	90.00	-581.4	354.1	395.1	365.7	29.38	13.449			
8,300.0	7,592.0	7,600.0	7,600.0	21.2	13.2	90.00	-581.4	354.1	363.0	332.6	30.41	11.937			
8,371.8	7,592.0	7,600.0	7,600.0	21.9	13.2	90.00	-581.4	354.1	355.8	324.6	31.23	11.394	CC, ES		
8,400.0	7,592.0	7,600.0	7,600.0	22.2	13.2	90.00	-581.4	354.1	357.0	325.4	31.55	11.313	SF		
8,500.0	7,592.0	7,600.0	7,600.0	23.2	13.2	90.00	-581.4	354.1	378.3	345.5	32.79	11.536			
8,600.0	7,592.0	7,600.0	7,600.0	24.3	13.2	90.00	-581.4	354.1	422.8	388.7	34.10	12.399			
8,700.0	7,592.0	7,600.0	7,600.0	25.5	13.2	90.00	-581.4	354.1	484.1	448.7	35.47	13.650			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													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		
8,900.0	7,592.0	7,585.0	7,585.0	28.0	13.2	90.00	-1,558.4	685.2	449.4	411.1	38.32	11.727			
9,000.0	7,592.0	7,585.0	7,585.0	29.4	13.2	90.00	-1,558.4	685.2	349.6	309.8	39.82	8.780			
9,100.0	7,592.0	7,585.0	7,585.0	30.8	13.2	90.00	-1,558.4	685.2	250.0	208.6	41.35	6.045			
9,200.0	7,592.0	7,585.0	7,585.0	32.2	13.2	90.00	-1,558.4	685.2	150.8	107.9	42.90	3.515			
9,300.0	7,592.0	7,585.0	7,585.0	33.7	13.2	90.00	-1,558.4	685.2	54.6	10.2	44.48	1.229	Level 2		
9,348.7	7,592.0	7,585.0	7,585.0	34.4	13.2	90.00	-1,558.4	685.2	24.7	-20.6	45.25	0.545	Level 1, CC, ES, SF		
9,400.0	7,592.0	7,585.0	7,585.0	35.1	13.2	90.00	-1,558.4	685.2	56.9	10.8	46.07	1.235	Level 2		
9,500.0	7,592.0	7,585.0	7,585.0	36.7	13.2	90.00	-1,558.4	685.2	153.2	105.6	47.68	3.214			
9,600.0	7,592.0	7,585.0	7,585.0	38.2	13.2	90.00	-1,558.4	685.2	252.5	203.2	49.30	5.121			
9,700.0	7,592.0	7,585.0	7,585.0	39.7	13.2	90.00	-1,558.4	685.2	352.1	301.2	50.93	6.913			
9,800.0	7,592.0	7,585.0	7,585.0	41.3	13.2	90.00	-1,558.4	685.2	451.9	399.3	52.58	8.596			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													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	0.0	0.0	0.0	0.0	-89.95	0.0	-39.1	39.1						
100.0	100.0	100.0	100.0	0.2	0.2	-89.95	0.0	-39.1	39.1	38.8	0.30	128.823			
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-39.1	39.1	38.5	0.65	59.934	CC, ES		
300.0	300.0	298.8	298.7	0.5	0.5	-88.86	0.8	-40.6	40.7	39.7	1.00	40.533			
400.0	400.0	397.3	397.1	0.7	0.7	-86.05	3.1	-45.2	45.4	44.0	1.37	33.131			
500.0	500.0	495.2	494.7	0.9	0.9	-142.12	6.9	-52.7	54.7	53.0	1.70	32.179	SF		
600.0	599.8	592.6	591.4	1.0	1.2	-141.16	12.2	-63.0	70.0	67.9	2.06	34.002			
700.0	699.5	690.8	688.8	1.3	1.4	-141.66	17.9	-74.2	88.7	86.3	2.43	36.579			
800.0	798.8	788.6	785.7	1.5	1.7	-142.96	23.6	-85.3	109.7	106.9	2.81	39.093			
900.0	898.1	886.3	882.6	1.7	2.0	-143.98	29.3	-96.5	131.0	127.8	3.19	40.993			
1,000.0	997.4	984.0	979.5	2.0	2.2	-144.71	35.0	-107.6	152.2	148.6	3.59	42.453			
1,100.0	1,096.7	1,081.7	1,076.4	2.2	2.5	-145.27	40.7	-118.8	173.5	169.5	3.98	43.609			
1,200.0	1,196.0	1,179.4	1,173.3	2.5	2.8	-145.70	46.4	-129.9	194.8	190.4	4.37	44.546			
1,300.0	1,295.3	1,277.1	1,270.2	2.8	3.1	-146.04	52.1	-141.1	216.1	211.3	4.77	45.319			
1,400.0	1,394.6	1,374.8	1,367.1	3.0	3.3	-146.33	57.8	-152.2	237.4	232.2	5.16	45.968			
1,500.0	1,493.9	1,472.5	1,464.0	3.3	3.6	-146.57	63.5	-163.4	258.7	253.1	5.56	46.520			
1,600.0	1,593.2	1,570.2	1,560.9	3.6	3.9	-146.77	69.2	-174.5	280.0	274.0	5.96	46.995			
1,700.0	1,692.5	1,667.9	1,657.8	3.8	4.2	-146.94	74.9	-185.7	301.3	294.9	6.36	47.408			
1,800.0	1,791.8	1,765.6	1,754.7	4.1	4.4	-147.09	80.5	-196.8	322.6	315.9	6.75	47.771			
1,900.0	1,891.2	1,863.3	1,851.6	4.3	4.7	-147.22	86.2	-208.0	343.9	336.8	7.15	48.092			
2,000.0	1,990.5	1,961.0	1,948.5	4.6	5.0	-147.34	91.9	-219.1	365.3	357.7	7.55	48.378			
2,100.0	2,089.8	2,058.7	2,045.4	4.9	5.3	-147.44	97.6	-230.3	386.6	378.6	7.95	48.634			
2,200.0	2,189.1	2,156.4	2,142.2	5.2	5.5	-147.54	103.3	-241.4	407.9	399.5	8.35	48.865			
2,300.0	2,288.4	2,254.1	2,239.1	5.4	5.8	-147.62	109.0	-252.6	429.2	420.5	8.75	49.074			
2,400.0	2,387.7	2,351.7	2,336.0	5.7	6.1	-147.69	114.7	-263.7	450.5	441.4	9.15	49.264			
2,500.0	2,487.0	2,449.4	2,432.9	6.0	6.4	-147.76	120.4	-274.9	471.9	462.3	9.54	49.438			
2,600.0	2,586.3	2,547.1	2,529.8	6.2	6.7	-147.83	126.1	-286.0	493.2	483.2	9.94	49.597			

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 lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													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	0.0	0.0	0.0	0.0	-89.95	0.0	-30.7	30.7						
100.0	100.0	100.0	100.0	0.2	0.2	-89.95	0.0	-30.7	30.7	30.4	0.30	101.218			
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-30.7	30.7	30.1	0.65	47.091			
300.0	300.0	300.0	300.0	0.5	0.5	-89.95	0.0	-30.7	30.7	29.7	1.00	30.683			
400.0	400.0	400.0	400.0	0.7	0.7	-89.95	0.0	-30.7	30.7	29.4	1.35	22.754 CC, ES			
500.0	500.0	499.3	499.3	0.9	0.9	-147.77	1.4	-31.8	33.3	31.6	1.70	19.585 SF			
600.0	599.8	598.2	598.0	1.0	1.0	-145.94	5.4	-35.0	41.0	38.9	2.06	19.918			
700.0	699.5	697.1	696.6	1.3	1.2	-144.68	11.5	-39.7	53.3	50.8	2.43	21.934			
800.0	798.8	796.0	795.2	1.5	1.4	-145.22	17.7	-44.5	68.0	65.1	2.81	24.165			
900.0	898.1	894.9	893.8	1.7	1.6	-145.71	23.9	-49.4	82.8	79.6	3.20	25.866			
1,000.0	997.4	993.8	992.4	2.0	1.9	-146.04	30.2	-54.2	97.7	94.1	3.60	27.168			
1,100.0	1,096.7	1,092.7	1,090.9	2.2	2.1	-146.29	36.4	-59.1	112.6	108.6	3.99	28.194			
1,200.0	1,196.0	1,191.5	1,189.5	2.5	2.3	-146.48	42.6	-63.9	127.5	123.1	4.39	29.021			
1,300.0	1,295.3	1,290.4	1,288.1	2.8	2.5	-146.63	48.8	-68.8	142.4	137.6	4.79	29.702			
1,400.0	1,394.6	1,389.3	1,386.6	3.0	2.7	-146.75	55.0	-73.6	157.3	152.1	5.20	30.271			
1,500.0	1,493.9	1,488.2	1,485.2	3.3	2.9	-146.85	61.2	-78.4	172.2	166.6	5.60	30.754			
1,600.0	1,593.2	1,587.1	1,583.8	3.6	3.2	-146.94	67.4	-83.3	187.1	181.1	6.00	31.168			
1,700.0	1,692.5	1,686.0	1,682.4	3.8	3.4	-147.01	73.6	-88.1	202.0	195.6	6.41	31.527			
1,800.0	1,791.8	1,784.8	1,780.9	4.1	3.6	-147.07	79.9	-93.0	216.9	210.1	6.81	31.842			
1,900.0	1,891.2	1,883.7	1,879.5	4.3	3.8	-147.13	86.1	-97.8	231.8	224.6	7.22	32.119			
2,000.0	1,990.5	1,982.6	1,978.1	4.6	4.0	-147.17	92.3	-102.7	246.7	239.1	7.62	32.366			
2,100.0	2,089.8	2,081.5	2,076.6	4.9	4.3	-147.22	98.5	-107.5	261.6	253.6	8.03	32.586			
2,200.0	2,189.1	2,180.4	2,175.2	5.2	4.5	-147.25	104.7	-112.4	276.5	268.1	8.43	32.785			
2,300.0	2,288.4	2,279.3	2,273.8	5.4	4.7	-147.29	110.9	-117.2	291.4	282.6	8.84	32.964			
2,400.0	2,387.7	2,378.1	2,372.3	5.7	4.9	-147.32	117.1	-122.0	306.3	297.1	9.25	33.127			
2,500.0	2,487.0	2,477.0	2,470.9	6.0	5.1	-147.35	123.3	-126.9	321.2	311.6	9.65	33.276			
2,600.0	2,586.3	2,575.9	2,569.5	6.2	5.3	-147.37	129.6	-131.7	336.1	326.0	10.06	33.412			
2,700.0	2,685.6	2,674.8	2,668.0	6.5	5.6	-147.39	135.8	-136.6	351.0	340.5	10.47	33.538			
2,800.0	2,784.9	2,773.7	2,766.6	6.8	5.8	-147.42	142.0	-141.4	365.9	355.0	10.87	33.653			
2,900.0	2,884.2	2,872.6	2,865.2	7.0	6.0	-147.44	148.2	-146.3	380.8	369.5	11.28	33.760			
3,000.0	2,983.5	2,971.4	2,963.8	7.3	6.2	-147.45	154.4	-151.1	395.7	384.0	11.69	33.860			
3,100.0	3,082.8	3,070.3	3,062.3	7.6	6.4	-147.47	160.6	-155.9	410.6	398.5	12.09	33.952			
3,200.0	3,182.1	3,169.2	3,160.9	7.8	6.7	-147.49	166.8	-160.8	425.5	413.0	12.50	34.038			
3,300.0	3,281.4	3,268.1	3,259.5	8.1	6.9	-147.50	173.0	-165.6	440.4	427.5	12.91	34.119			
3,400.0	3,380.8	3,367.0	3,358.0	8.4	7.1	-147.51	179.3	-170.5	455.3	442.0	13.32	34.194			
3,500.0	3,480.1	3,465.9	3,456.6	8.6	7.3	-147.53	185.5	-175.3	470.2	456.5	13.72	34.265			
3,600.0	3,579.4	3,564.7	3,555.2	8.9	7.6	-147.54	191.7	-180.2	485.1	471.0	14.13	34.332			

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 lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													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	0.0	0.0	0.0	0.0	-89.95	0.0	-19.6	19.6						
100.0	100.0	100.0	100.0	0.2	0.2	-89.95	0.0	-19.6	19.6	19.3	0.30	64.411			
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-19.6	19.6	18.9	0.65	29.967			
300.0	300.0	300.0	300.0	0.5	0.5	-89.95	0.0	-19.6	19.6	18.6	1.00	19.525			
400.0	400.0	400.0	400.0	0.7	0.7	-89.95	0.0	-19.6	19.6	18.2	1.35	14.480 CC, ES			
500.0	500.0	500.0	500.0	0.9	0.8	-151.03	0.0	-19.6	21.1	19.4	1.70	12.394 SF			
600.0	599.8	599.8	599.8	1.0	1.0	-156.64	0.0	-19.6	25.8	23.7	2.05	12.580			
700.0	699.5	699.5	699.5	1.3	1.2	-162.43	0.0	-19.6	34.0	31.6	2.40	14.173			
800.0	798.8	798.8	798.8	1.5	1.4	-166.83	0.0	-19.6	45.1	42.3	2.74	16.435			
900.0	898.1	898.1	898.1	1.7	1.5	-169.54	0.0	-19.6	56.6	53.5	3.09	18.312			
1,000.0	997.4	997.4	997.4	2.0	1.7	-171.34	0.0	-19.6	68.2	64.7	3.44	19.835			
1,100.0	1,096.7	1,096.7	1,096.7	2.2	1.9	-172.61	0.0	-19.6	79.8	76.0	3.78	21.092			
1,200.0	1,196.0	1,196.8	1,196.8	2.5	2.1	-172.57	1.6	-19.8	91.1	86.9	4.14	22.019			
1,300.0	1,295.3	1,297.0	1,296.9	2.8	2.2	-170.61	6.7	-20.6	101.5	97.0	4.50	22.558			
1,400.0	1,394.6	1,396.4	1,396.0	3.0	2.4	-168.11	13.5	-21.7	111.6	106.8	4.87	22.917			
1,500.0	1,493.9	1,495.8	1,495.2	3.3	2.6	-166.03	20.4	-22.8	122.0	116.7	5.25	23.227			
1,600.0	1,593.2	1,595.2	1,594.3	3.6	2.8	-164.27	27.2	-23.9	132.4	126.8	5.64	23.494			
1,700.0	1,692.5	1,694.6	1,693.4	3.8	3.0	-162.77	34.1	-25.0	143.0	137.0	6.03	23.724			
1,800.0	1,791.8	1,793.9	1,792.6	4.1	3.2	-161.48	40.9	-26.1	153.6	147.2	6.42	23.925			
1,900.0	1,891.2	1,893.3	1,891.7	4.3	3.4	-160.35	47.8	-27.2	164.4	157.5	6.82	24.100			
2,000.0	1,990.5	1,992.7	1,990.8	4.6	3.6	-159.37	54.6	-28.3	175.1	167.9	7.22	24.254			
2,100.0	2,089.8	2,092.1	2,090.0	4.9	3.8	-158.50	61.4	-29.4	186.0	178.3	7.62	24.391			
2,200.0	2,189.1	2,191.4	2,189.1	5.2	4.0	-157.72	68.3	-30.5	196.8	188.8	8.03	24.513			
2,300.0	2,288.4	2,290.8	2,288.2	5.4	4.2	-157.02	75.1	-31.6	207.7	199.3	8.44	24.622			
2,400.0	2,387.7	2,390.2	2,387.4	5.7	4.4	-156.40	82.0	-32.7	218.6	209.8	8.84	24.720			
2,500.0	2,487.0	2,489.6	2,486.5	6.0	4.6	-155.83	88.8	-33.8	229.6	220.3	9.25	24.809			
2,600.0	2,586.3	2,588.9	2,585.6	6.2	4.8	-155.32	95.7	-34.9	240.5	230.9	9.66	24.890			
2,700.0	2,685.6	2,688.3	2,684.8	6.5	5.0	-154.85	102.5	-36.0	251.5	241.4	10.08	24.964			
2,800.0	2,784.9	2,787.7	2,783.9	6.8	5.2	-154.42	109.3	-37.1	262.5	252.0	10.49	25.031			
2,900.0	2,884.2	2,887.1	2,883.0	7.0	5.4	-154.02	116.2	-38.2	273.5	262.6	10.90	25.093			
3,000.0	2,983.5	2,986.4	2,982.2	7.3	5.7	-153.66	123.0	-39.3	284.5	273.2	11.31	25.150			
3,100.0	3,082.8	3,085.8	3,081.3	7.6	5.9	-153.32	129.9	-40.4	295.6	283.8	11.73	25.203			
3,200.0	3,182.1	3,185.2	3,180.4	7.8	6.1	-153.01	136.7	-41.5	306.6	294.5	12.14	25.252			
3,300.0	3,281.4	3,284.6	3,279.6	8.1	6.3	-152.72	143.5	-42.6	317.6	305.1	12.56	25.298			
3,400.0	3,380.8	3,383.9	3,378.7	8.4	6.5	-152.44	150.4	-43.7	328.7	315.7	12.97	25.341			
3,500.0	3,480.1	3,483.3	3,477.8	8.6	6.7	-152.19	157.2	-44.8	339.8	326.4	13.39	25.380			
3,600.0	3,579.4	3,582.7	3,577.0	8.9	6.9	-151.95	164.1	-45.9	350.8	337.0	13.80	25.418			
3,700.0	3,678.7	3,682.1	3,676.1	9.2	7.1	-151.73	170.9	-47.0	361.9	347.7	14.22	25.453			
3,800.0	3,778.0	3,781.4	3,775.2	9.5	7.3	-151.52	177.8	-48.1	373.0	358.4	14.64	25.486			
3,900.0	3,877.3	3,880.8	3,874.4	9.7	7.5	-151.32	184.6	-49.2	384.1	369.0	15.05	25.517			
4,000.0	3,976.6	3,980.2	3,973.5	10.0	7.7	-151.13	191.4	-50.3	395.2	379.7	15.47	25.546			
4,100.0	4,075.9	4,079.6	4,072.6	10.3	7.9	-150.95	198.3	-51.4	406.3	390.4	15.89	25.573			
4,200.0	4,175.2	4,178.9	4,171.8	10.5	8.2	-150.79	205.1	-52.5	417.3	401.0	16.30	25.600			
4,300.0	4,274.5	4,278.3	4,270.9	10.8	8.4	-150.63	212.0	-53.5	428.4	411.7	16.72	25.624			
4,400.0	4,373.8	4,377.7	4,370.0	11.1	8.6	-150.48	218.8	-54.6	439.5	422.4	17.14	25.648			
4,500.0	4,473.1	4,477.1	4,469.2	11.3	8.8	-150.33	225.7	-55.7	450.7	433.1	17.56	25.670			
4,600.0	4,572.4	4,576.4	4,568.3	11.6	9.0	-150.20	232.5	-56.8	461.8	443.8	17.97	25.692			
4,700.0	4,671.7	4,675.8	4,667.4	11.9	9.2	-150.07	239.3	-57.9	472.9	454.5	18.39	25.712			
4,800.0	4,771.0	4,775.2	4,766.6	12.2	9.4	-149.94	246.2	-59.0	484.0	465.2	18.81	25.731			
4,900.0	4,870.3	4,874.6	4,865.7	12.4	9.6	-149.82	253.0	-60.1	495.1	475.9	19.23	25.750			

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 lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													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	0.0	0.0	0.0	0.0	-89.96	0.0	-11.2	11.2						
100.0	100.0	100.0	100.0	0.2	0.2	-89.96	0.0	-11.2	11.2	10.9	0.30	36.806			
200.0	200.0	200.0	200.0	0.3	0.3	-89.96	0.0	-11.2	11.2	10.5	0.65	17.124			
300.0	300.0	300.0	300.0	0.5	0.5	-89.96	0.0	-11.2	11.2	10.2	1.00	11.157			
400.0	400.0	400.0	400.0	0.7	0.7	-89.96	0.0	-11.2	11.2	9.8	1.35	8.274	CC, ES		
500.0	500.0	500.0	500.0	0.9	0.8	-152.67	0.0	-11.2	12.7	11.0	1.70	7.471			
600.0	599.8	599.8	599.8	1.0	1.0	-160.52	0.0	-11.2	17.5	15.5	2.05	8.552			
700.0	699.5	700.2	700.2	1.3	1.2	-165.16	1.2	-9.9	24.3	21.9	2.40	10.160			
800.0	798.8	800.9	800.7	1.5	1.4	-166.11	4.9	-6.1	30.8	28.1	2.75	11.217			
900.0	898.1	901.5	901.0	1.7	1.6	-164.35	11.0	0.1	34.6	31.5	3.11	11.105			
1,000.0	997.4	1,001.5	1,000.5	2.0	1.8	-162.27	17.6	6.9	37.6	34.1	3.49	10.777			
1,100.0	1,096.7	1,101.4	1,100.0	2.2	2.0	-160.49	24.2	13.7	40.6	36.7	3.87	10.502			
1,200.0	1,196.0	1,201.4	1,199.5	2.5	2.2	-158.96	30.9	20.5	43.7	39.4	4.25	10.268			
1,300.0	1,295.3	1,301.3	1,299.0	2.8	2.5	-157.63	37.5	27.4	46.8	42.1	4.65	10.066			
1,400.0	1,394.6	1,401.3	1,398.5	3.0	2.7	-156.47	44.2	34.2	49.9	44.8	5.04	9.890			
1,500.0	1,493.9	1,501.2	1,497.9	3.3	2.9	-155.44	50.8	41.0	53.0	47.6	5.45	9.735			
1,600.0	1,593.2	1,601.2	1,597.4	3.6	3.2	-154.53	57.4	47.8	56.2	50.3	5.85	9.597			
1,700.0	1,692.5	1,701.1	1,696.9	3.8	3.4	-153.72	64.1	54.6	59.3	53.1	6.26	9.474			
1,800.0	1,791.8	1,801.1	1,796.4	4.1	3.6	-152.99	70.7	61.4	62.5	55.8	6.68	9.363			
1,900.0	1,891.2	1,901.0	1,895.9	4.3	3.9	-152.32	77.4	68.3	65.7	58.6	7.09	9.264			
2,000.0	1,990.5	2,000.9	1,995.4	4.6	4.1	-151.72	84.0	75.1	68.9	61.4	7.51	9.174			
2,100.0	2,089.8	2,100.9	2,094.9	4.9	4.3	-151.18	90.6	81.9	72.1	64.2	7.93	9.092			
2,200.0	2,189.1	2,200.8	2,194.4	5.2	4.6	-150.68	97.3	88.7	75.3	66.9	8.35	9.017			
2,300.0	2,288.4	2,300.8	2,293.9	5.4	4.8	-150.22	103.9	95.5	78.5	69.7	8.77	8.948			
2,400.0	2,387.7	2,400.7	2,393.4	5.7	5.0	-149.80	110.5	102.3	81.7	72.5	9.20	8.885			
2,500.0	2,487.0	2,500.7	2,492.9	6.0	5.3	-149.40	117.2	109.2	84.9	75.3	9.62	8.826			
2,600.0	2,586.3	2,600.6	2,592.4	6.2	5.5	-149.04	123.8	116.0	88.1	78.1	10.05	8.772			
2,700.0	2,685.6	2,700.6	2,691.9	6.5	5.8	-148.71	130.5	122.8	91.4	80.9	10.47	8.722			
2,800.0	2,784.9	2,800.5	2,791.3	6.8	6.0	-148.39	137.1	129.6	94.6	83.7	10.90	8.676			
2,900.0	2,884.2	2,900.5	2,890.8	7.0	6.2	-148.10	143.7	136.4	97.8	86.5	11.33	8.632			
3,000.0	2,983.5	3,000.4	2,990.3	7.3	6.5	-147.82	150.4	143.3	101.1	89.3	11.76	8.592			
3,100.0	3,082.8	3,100.4	3,089.8	7.6	6.7	-147.57	157.0	150.1	104.3	92.1	12.19	8.554			
3,200.0	3,182.1	3,200.3	3,189.3	7.8	7.0	-147.32	163.7	156.9	107.5	94.9	12.62	8.518			
3,300.0	3,281.4	3,300.2	3,288.8	8.1	7.2	-147.10	170.3	163.7	110.8	97.7	13.05	8.485			
3,400.0	3,380.8	3,400.2	3,388.3	8.4	7.4	-146.88	176.9	170.5	114.0	100.5	13.49	8.454			
3,500.0	3,480.1	3,500.1	3,487.8	8.6	7.7	-146.68	183.6	177.3	117.2	103.3	13.92	8.424			
3,600.0	3,579.4	3,600.1	3,587.3	8.9	7.9	-146.49	190.2	184.2	120.5	106.1	14.35	8.396			
3,700.0	3,678.7	3,700.0	3,686.8	9.2	8.2	-146.30	196.8	191.0	123.7	108.9	14.78	8.369			
3,800.0	3,778.0	3,800.0	3,786.3	9.5	8.4	-146.13	203.5	197.8	127.0	111.8	15.22	8.344			
3,900.0	3,877.3	3,899.9	3,885.8	9.7	8.6	-145.97	210.1	204.6	130.2	114.6	15.65	8.320			
4,000.0	3,976.6	3,999.9	3,985.3	10.0	8.9	-145.81	216.8	211.4	133.5	117.4	16.08	8.298			
4,100.0	4,075.9	4,099.8	4,084.8	10.3	9.1	-145.66	223.4	218.3	136.7	120.2	16.52	8.276			
4,200.0	4,175.2	4,199.8	4,184.2	10.5	9.4	-145.52	230.0	225.1	140.0	123.0	16.95	8.256			
4,300.0	4,274.5	4,299.7	4,283.7	10.8	9.6	-145.38	236.7	231.9	143.2	125.8	17.39	8.236			
4,400.0	4,373.8	4,399.7	4,383.2	11.1	9.8	-145.26	243.3	238.7	146.5	128.6	17.82	8.218			
4,500.0	4,473.1	4,499.6	4,482.7	11.3	10.1	-145.13	249.9	245.5	149.7	131.5	18.26	8.200			
4,600.0	4,572.4	4,599.6	4,582.2	11.6	10.3	-145.01	256.6	252.3	153.0	134.3	18.69	8.183			
4,700.0	4,671.7	4,699.5	4,681.7	11.9	10.6	-144.90	263.2	259.2	156.2	137.1	19.13	8.167			
4,800.0	4,771.0	4,799.4	4,781.2	12.2	10.8	-144.79	269.9	266.0	159.5	139.9	19.56	8.151			
4,900.0	4,870.3	4,899.4	4,880.7	12.4	11.0	-144.69	276.5	272.8	162.7	142.7	20.00	8.136			
5,000.0	4,969.7	4,999.3	4,980.2	12.7	11.3	-144.59	283.1	279.6	166.0	145.5	20.44	8.122			
5,100.0	5,069.0	5,099.3	5,079.7	13.0	11.5	-144.49	289.8	286.4	169.2	148.4	20.87	8.108			

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 lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design														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			
5,200.0	5,168.3	5,199.2	5,179.2	13.2	11.8	-144.40	296.4	293.2	172.5	151.2	21.31	8.095				
5,300.0	5,267.6	5,299.2	5,278.7	13.5	12.0	-144.31	303.1	300.1	175.7	154.0	21.75	8.082				
5,400.0	5,366.9	5,399.1	5,378.2	13.8	12.2	-144.22	309.7	306.9	179.0	156.8	22.18	8.070				
5,500.0	5,466.2	5,499.1	5,477.6	14.0	12.5	-144.14	316.3	313.7	182.3	159.6	22.62	8.058				
5,600.0	5,565.5	5,599.0	5,577.1	14.3	12.7	-144.06	323.0	320.5	185.5	162.5	23.06	8.046				
5,700.0	5,664.8	5,699.0	5,676.6	14.6	13.0	-143.98	329.6	327.3	188.8	165.3	23.49	8.035				
5,800.0	5,764.1	5,798.9	5,776.1	14.8	13.2	-143.90	336.2	334.2	192.0	168.1	23.93	8.025				
5,900.0	5,863.4	5,898.9	5,875.6	15.1	13.4	-143.83	342.9	341.0	195.3	170.9	24.37	8.015				
6,000.0	5,962.7	5,998.8	5,975.1	15.4	13.7	-143.76	349.5	347.8	198.5	173.7	24.80	8.005				
6,100.0	6,062.0	6,098.8	6,074.6	15.7	13.9	-143.69	356.2	354.6	201.8	176.6	25.24	7.995				
6,200.0	6,161.3	6,198.7	6,174.1	15.9	14.2	-143.63	362.8	361.4	205.1	179.4	25.68	7.986				
6,300.0	6,260.6	6,298.6	6,273.6	16.2	14.4	-143.57	369.4	368.2	208.3	182.2	26.11	7.977				
6,400.0	6,359.9	6,398.6	6,373.1	16.5	14.6	-143.50	376.1	375.1	211.6	185.0	26.55	7.968				
6,500.0	6,459.2	6,498.5	6,472.6	16.7	14.9	-143.44	382.7	381.9	214.8	187.8	26.99	7.960				
6,600.0	6,558.6	6,598.5	6,572.1	17.0	15.1	-143.39	389.4	388.7	218.1	190.7	27.43	7.952				
6,700.0	6,657.9	6,698.4	6,671.6	17.3	15.4	-143.33	396.0	395.5	221.4	193.5	27.87	7.944				
6,800.0	6,757.2	6,800.4	6,773.1	17.5	15.6	-144.04	399.7	402.5	224.4	196.2	28.13	7.975				
6,900.0	6,856.5	6,900.3	6,871.9	17.8	15.6	-148.73	387.4	409.2	226.8	199.3	27.59	8.222				
7,000.0	6,955.8	6,991.5	6,959.0	18.1	15.6	-156.51	361.4	415.2	232.7	206.2	26.52	8.773				
7,100.0	7,055.2	7,072.9	7,032.4	18.3	15.5	132.85	326.7	420.2	246.4	220.9	25.49	9.667				
7,200.0	7,153.5	7,150.0	7,096.7	18.4	15.4	87.92	284.5	424.6	265.8	240.8	25.03	10.619				
7,300.0	7,247.8	7,224.2	7,152.8	18.4	15.3	71.55	236.1	428.5	287.8	262.8	24.97	11.523				
7,400.0	7,335.3	7,300.0	7,203.1	18.4	15.2	61.92	179.6	431.9	310.0	285.1	24.93	12.435				
7,500.0	7,413.2	7,366.3	7,240.7	18.3	15.1	55.77	125.0	434.5	330.6	306.0	24.64	13.417				
7,600.0	7,479.2	7,435.2	7,272.8	18.3	15.2	51.37	64.2	436.7	348.6	324.5	24.11	14.456				
7,700.0	7,531.4	7,500.0	7,296.2	18.3	15.3	48.39	3.8	438.3	363.0	339.6	23.42	15.499				
7,800.0	7,568.1	7,570.5	7,313.7	18.4	15.5	46.41	-64.4	439.5	373.2	350.4	22.82	16.356				
7,900.0	7,588.2	7,637.4	7,322.5	18.7	15.7	45.39	-130.7	440.1	379.0	356.5	22.47	16.865				
8,000.0	7,592.0	7,716.3	7,324.0	19.1	16.1	45.18	-209.6	440.2	380.2	357.4	22.81	16.665				
8,100.0	7,592.0	7,816.3	7,324.0	19.7	16.8	45.18	-309.6	440.2	380.2	356.2	23.97	15.865				
8,200.0	7,592.0	7,916.3	7,324.0	20.4	17.6	45.18	-409.6	440.2	380.2	354.9	25.31	15.020				
8,300.0	7,592.0	8,016.3	7,324.0	21.2	18.6	45.18	-509.6	440.2	380.2	353.4	26.83	14.173				
8,400.0	7,592.0	8,116.3	7,324.0	22.2	19.6	45.18	-609.6	440.2	380.2	351.7	28.48	13.350				
8,500.0	7,592.0	8,216.3	7,324.0	23.2	20.8	45.18	-709.6	440.2	380.2	350.0	30.25	12.568				
8,600.0	7,592.0	8,316.3	7,324.0	24.3	22.0	45.18	-809.6	440.2	380.2	348.1	32.12	11.837				
8,700.0	7,592.0	8,416.3	7,324.0	25.5	23.3	45.18	-909.6	440.2	380.2	346.1	34.07	11.159				
8,800.0	7,592.0	8,516.3	7,324.0	26.7	24.7	45.18	-1,009.6	440.2	380.2	344.1	36.09	10.535				
8,900.0	7,592.0	8,616.3	7,324.0	28.0	26.1	45.18	-1,109.6	440.2	380.2	342.0	38.16	9.962				
9,000.0	7,592.0	8,716.3	7,324.0	29.4	27.5	45.18	-1,209.6	440.2	380.2	339.9	40.29	9.437				
9,100.0	7,592.0	8,816.3	7,324.0	30.8	29.0	45.18	-1,309.6	440.2	380.2	337.7	42.46	8.955				
9,200.0	7,592.0	8,916.3	7,324.0	32.2	30.5	45.18	-1,409.6	440.2	380.2	335.5	44.66	8.514				
9,300.0	7,592.0	9,016.3	7,324.0	33.7	32.0	45.18	-1,509.6	440.2	380.2	333.3	46.89	8.109				
9,400.0	7,592.0	9,116.3	7,324.0	35.1	33.6	45.18	-1,609.6	440.2	380.2	331.1	49.15	7.736				
9,500.0	7,592.0	9,216.3	7,324.0	36.7	35.1	45.18	-1,709.6	440.2	380.2	328.8	51.43	7.393				
9,600.0	7,592.0	9,316.3	7,324.0	38.2	36.7	45.18	-1,809.6	440.2	380.2	326.5	53.73	7.076				
9,700.0	7,592.0	9,416.3	7,324.0	39.7	38.3	45.18	-1,909.6	440.2	380.2	324.2	56.05	6.784				
9,800.0	7,592.0	9,516.3	7,324.0	41.3	40.0	45.18	-2,009.6	440.2	380.2	321.8	58.38	6.513				
9,900.0	7,592.0	9,616.3	7,324.0	42.9	41.6	45.18	-2,109.6	440.2	380.2	319.5	60.73	6.261				
10,000.0	7,592.0	9,716.3	7,324.0	44.5	43.2	45.18	-2,209.6	440.2	380.2	317.1	63.09	6.027				
10,100.0	7,592.0	9,816.3	7,324.0	46.1	44.9	45.18	-2,309.6	440.2	380.2	314.7	65.45	5.809				
10,200.0	7,592.0	9,916.3	7,324.0	47.7	46.5	45.18	-2,409.6	440.2	380.2	312.4	67.83	5.605				
10,300.0	7,592.0	10,016.3	7,324.0	49.3	48.2	45.18	-2,509.6	440.2	380.2	310.0	70.22	5.414				

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
NWNE S2-T2N-R66W (lone) - lone 1D-2H - HZ - Plan #1															
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
10,400.0	7,592.0	10,116.3	7,324.0	50.9	49.8	45.18	-2,609.6	440.2	380.2	307.6	72.62	5.236			
10,500.0	7,592.0	10,216.3	7,324.0	52.6	51.5	45.18	-2,709.6	440.2	380.2	305.2	75.02	5.068			
10,600.0	7,592.0	10,316.3	7,324.0	54.2	53.2	45.18	-2,809.6	440.2	380.2	302.8	77.43	4.910			
10,700.0	7,592.0	10,416.3	7,324.0	55.9	54.9	45.18	-2,909.6	440.2	380.2	300.4	79.84	4.762			
10,800.0	7,592.0	10,516.3	7,324.0	57.5	56.6	45.18	-3,009.6	440.2	380.2	297.9	82.26	4.622			
10,900.0	7,592.0	10,616.3	7,324.0	59.2	58.3	45.18	-3,109.6	440.2	380.2	295.5	84.69	4.489			
11,000.0	7,592.0	10,716.3	7,324.0	60.9	60.0	45.18	-3,209.6	440.2	380.2	293.1	87.12	4.364			
11,100.0	7,592.0	10,816.3	7,324.0	62.5	61.7	45.18	-3,309.6	440.2	380.2	290.7	89.55	4.246			
11,200.0	7,592.0	10,916.3	7,324.0	64.2	63.4	45.18	-3,409.6	440.2	380.2	288.2	91.99	4.133			
11,300.0	7,592.0	11,016.3	7,324.0	65.9	65.1	45.18	-3,509.6	440.2	380.2	285.8	94.43	4.026			
11,400.0	7,592.0	11,116.3	7,324.0	67.6	66.8	45.18	-3,609.6	440.2	380.2	283.3	96.87	3.925			
11,500.0	7,592.0	11,216.3	7,324.0	69.3	68.5	45.18	-3,709.6	440.2	380.2	280.9	99.32	3.828			
11,600.0	7,592.0	11,316.3	7,324.0	71.0	70.2	45.18	-3,809.6	440.2	380.2	278.4	101.77	3.736			
11,700.0	7,592.0	11,416.3	7,324.0	72.7	71.9	45.18	-3,909.6	440.2	380.2	276.0	104.22	3.648			
11,800.0	7,592.0	11,516.3	7,324.0	74.4	73.6	45.18	-4,009.6	440.2	380.2	273.5	106.68	3.564			
11,900.0	7,592.0	11,616.3	7,324.0	76.1	75.3	45.18	-4,109.6	440.2	380.2	271.1	109.14	3.484			
12,000.0	7,592.0	11,716.3	7,324.0	77.8	77.1	45.18	-4,209.6	440.2	380.2	268.6	111.59	3.407			
12,100.0	7,592.0	11,816.3	7,324.0	79.5	78.8	45.18	-4,309.6	440.2	380.2	266.1	114.06	3.334			
12,183.6	7,592.0	11,899.9	7,324.0	80.9	80.2	45.18	-4,393.2	440.2	380.2	264.1	116.11	3.274 SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													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	0.0	0.0	0.0	0.0	89.77	0.0	8.4	8.4						
100.0	100.0	100.0	100.0	0.2	0.2	89.77	0.0	8.4	8.4	8.1	0.30	27.605			
200.0	200.0	200.0	200.0	0.3	0.3	89.77	0.0	8.4	8.4	7.7	0.65	12.843 CC, ES			
300.0	300.0	299.7	299.7	0.5	0.5	86.22	0.7	10.0	10.0	9.0	1.00	9.998 SF			
400.0	400.0	399.1	399.0	0.7	0.7	80.29	2.5	14.8	15.1	13.7	1.36	11.070			
500.0	500.0	498.3	497.7	0.9	0.9	18.80	5.7	22.8	22.0	20.3	1.70	12.944			
600.0	599.8	597.1	595.9	1.0	1.2	18.48	10.0	34.0	29.0	27.0	2.05	14.169			
700.0	699.5	695.8	693.3	1.3	1.5	19.22	15.5	48.3	36.2	33.8	2.40	15.050			
800.0	798.8	795.4	791.3	1.5	1.8	20.51	21.9	64.7	42.8	40.1	2.77	15.467			
900.0	898.1	895.1	889.5	1.7	2.2	21.57	28.3	81.2	49.3	46.2	3.14	15.691			
1,000.0	997.4	994.9	987.7	2.0	2.5	22.38	34.7	97.6	55.8	52.3	3.52	15.851			
1,100.0	1,096.7	1,094.7	1,085.9	2.2	2.9	23.02	41.1	114.1	62.3	58.4	3.90	15.967			
1,200.0	1,196.0	1,194.5	1,184.1	2.5	3.2	23.54	47.5	130.6	68.8	64.6	4.29	16.054			
1,300.0	1,295.3	1,294.3	1,282.4	2.8	3.6	23.97	53.9	147.1	75.4	70.7	4.68	16.119			
1,400.0	1,394.6	1,394.1	1,380.6	3.0	3.9	24.33	60.3	163.6	81.9	76.8	5.06	16.168			
1,500.0	1,493.9	1,493.9	1,478.8	3.3	4.3	24.64	66.7	180.1	88.4	83.0	5.46	16.207			
1,600.0	1,593.2	1,593.6	1,577.0	3.6	4.6	24.90	73.1	196.5	94.9	89.1	5.85	16.238			
1,700.0	1,692.5	1,693.4	1,675.2	3.8	5.0	25.13	79.5	213.0	101.5	95.2	6.24	16.262			
1,800.0	1,791.8	1,793.2	1,773.4	4.1	5.3	25.34	86.0	229.5	108.0	101.4	6.63	16.281			
1,900.0	1,891.2	1,893.0	1,871.6	4.3	5.7	25.52	92.4	246.0	114.5	107.5	7.03	16.297			
2,000.0	1,990.5	1,992.8	1,969.8	4.6	6.1	25.68	98.8	262.5	121.1	113.7	7.42	16.309			
2,100.0	2,089.8	2,092.6	2,068.0	4.9	6.4	25.82	105.2	279.0	127.6	119.8	7.82	16.320			
2,200.0	2,189.1	2,192.4	2,166.2	5.2	6.8	25.95	111.6	295.4	134.2	125.9	8.22	16.328			
2,300.0	2,288.4	2,292.1	2,264.4	5.4	7.1	26.07	118.0	311.9	140.7	132.1	8.61	16.335			
2,400.0	2,387.7	2,391.9	2,362.6	5.7	7.5	26.18	124.4	328.4	147.2	138.2	9.01	16.341			
2,500.0	2,487.0	2,491.7	2,460.8	6.0	7.8	26.28	130.8	344.9	153.8	144.4	9.41	16.346			
2,600.0	2,586.3	2,591.5	2,559.0	6.2	8.2	26.37	137.2	361.4	160.3	150.5	9.80	16.350			
2,700.0	2,685.6	2,691.3	2,657.2	6.5	8.5	26.45	143.6	377.8	166.8	156.6	10.20	16.353			
2,800.0	2,784.9	2,791.1	2,755.5	6.8	8.9	26.53	150.0	394.3	173.4	162.8	10.60	16.356			
2,900.0	2,884.2	2,890.9	2,853.7	7.0	9.3	26.60	156.4	410.8	179.9	168.9	11.00	16.358			
3,000.0	2,983.5	2,990.6	2,951.9	7.3	9.6	26.67	162.8	427.3	186.5	175.1	11.40	16.360			
3,100.0	3,082.8	3,090.4	3,050.1	7.6	10.0	26.73	169.2	443.8	193.0	181.2	11.80	16.361			
3,200.0	3,182.1	3,190.2	3,148.3	7.8	10.3	26.79	175.6	460.3	199.5	187.3	12.19	16.362			
3,300.0	3,281.4	3,290.0	3,246.5	8.1	10.7	26.84	182.0	476.7	206.1	193.5	12.59	16.363			
3,400.0	3,380.8	3,389.8	3,344.7	8.4	11.1	26.89	188.4	493.2	212.6	199.6	12.99	16.364			
3,500.0	3,480.1	3,489.6	3,442.9	8.6	11.4	26.94	194.8	509.7	219.2	205.8	13.39	16.365			
3,600.0	3,579.4	3,589.4	3,541.1	8.9	11.8	26.98	201.2	526.2	225.7	211.9	13.79	16.365			
3,700.0	3,678.7	3,689.1	3,639.3	9.2	12.1	27.03	207.6	542.7	232.2	218.0	14.19	16.365			
3,800.0	3,778.0	3,788.9	3,737.5	9.5	12.5	27.07	214.0	559.1	238.8	224.2	14.59	16.365			
3,900.0	3,877.3	3,888.7	3,835.7	9.7	12.8	27.11	220.4	575.6	245.3	230.3	14.99	16.366			
4,000.0	3,976.6	3,988.5	3,933.9	10.0	13.2	27.14	226.8	592.1	251.9	236.5	15.39	16.366			
4,100.0	4,075.9	4,088.3	4,032.1	10.3	13.6	27.18	233.2	608.6	258.4	242.6	15.79	16.366			
4,200.0	4,175.2	4,188.1	4,130.3	10.5	13.9	27.21	239.7	625.1	264.9	248.8	16.19	16.365			
4,300.0	4,274.5	4,287.9	4,228.6	10.8	14.3	27.24	246.1	641.6	271.5	254.9	16.59	16.365			
4,400.0	4,373.8	4,387.6	4,326.8	11.1	14.6	27.27	252.5	658.0	278.0	261.0	16.99	16.365			
4,500.0	4,473.1	4,487.4	4,425.0	11.3	15.0	27.30	258.9	674.5	284.6	267.2	17.39	16.365			
4,600.0	4,572.4	4,587.2	4,523.2	11.6	15.3	27.32	265.3	691.0	291.1	273.3	17.79	16.365			
4,700.0	4,671.7	4,687.0	4,621.4	11.9	15.7	27.35	271.7	707.5	297.7	279.5	18.19	16.364			
4,800.0	4,771.0	4,786.8	4,719.6	12.2	16.1	27.37	278.1	724.0	304.2	285.6	18.59	16.364			
4,900.0	4,870.3	4,886.6	4,817.8	12.4	16.4	27.40	284.5	740.4	310.7	291.7	18.99	16.364			
5,000.0	4,969.7	4,986.4	4,916.0	12.7	16.8	27.42	290.9	756.9	317.3	297.9	19.39	16.363			
5,100.0	5,069.0	5,086.1	5,014.2	13.0	17.1	27.44	297.3	773.4	323.8	304.0	19.79	16.363			

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 lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 0-MWD													Offset Well Error:		0.0 ft
Reference													Warning		
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			
5,200.0	5,168.3	5,185.9	5,112.4	13.2	17.5	27.46	303.7	789.9	330.4	310.2	20.19	16.363			
5,300.0	5,267.6	5,285.7	5,210.6	13.5	17.8	27.48	310.1	806.4	336.9	316.3	20.59	16.362			
5,400.0	5,366.9	5,385.5	5,308.8	13.8	18.2	27.50	316.5	822.9	343.4	322.5	20.99	16.362			
5,500.0	5,466.2	5,485.3	5,407.0	14.0	18.6	27.52	322.9	839.3	350.0	328.6	21.39	16.361			
5,600.0	5,565.5	5,585.1	5,505.2	14.3	18.9	27.54	329.3	855.8	356.5	334.7	21.79	16.361			
5,700.0	5,664.8	5,684.9	5,603.4	14.6	19.3	27.56	335.7	872.3	363.1	340.9	22.19	16.361			
5,800.0	5,764.1	5,784.6	5,701.6	14.8	19.6	27.57	342.1	888.8	369.6	347.0	22.59	16.360			
5,900.0	5,863.4	5,884.4	5,799.9	15.1	20.0	27.59	348.5	905.3	376.2	353.2	22.99	16.360			
6,000.0	5,962.7	5,984.2	5,898.1	15.4	20.4	27.60	354.9	921.7	382.7	359.3	23.39	16.359			
6,100.0	6,062.0	6,084.0	5,996.3	15.7	20.7	27.62	361.3	938.2	389.2	365.4	23.79	16.359			
6,200.0	6,161.3	6,183.8	6,094.5	15.9	21.1	27.63	367.7	954.7	395.8	371.6	24.19	16.359			
6,300.0	6,260.6	6,283.6	6,192.7	16.2	21.4	27.65	374.1	971.2	402.3	377.7	24.59	16.358			
6,400.0	6,359.9	6,383.4	6,290.9	16.5	21.8	27.66	380.5	987.7	408.9	383.9	25.00	16.358			
6,500.0	6,459.2	6,483.1	6,389.1	16.7	22.1	27.67	386.9	1,004.2	415.4	390.0	25.40	16.357			
6,600.0	6,558.6	6,582.9	6,487.3	17.0	22.5	27.69	393.4	1,020.6	422.0	396.2	25.80	16.357			
6,700.0	6,657.9	6,682.7	6,585.5	17.3	22.9	27.70	399.8	1,037.1	428.5	402.3	26.20	16.357			
6,800.0	6,757.2	6,782.5	6,683.7	17.5	23.2	27.71	406.2	1,053.6	435.0	408.4	26.60	16.356			
6,900.0	6,856.5	6,885.0	6,784.7	17.8	23.5	28.28	408.5	1,070.6	441.4	414.3	27.08	16.298			
7,000.0	6,955.8	6,984.6	6,881.8	18.1	23.8	30.93	394.1	1,086.8	447.4	419.5	27.95	16.006			
7,100.0	7,055.2	7,076.4	6,967.9	18.3	23.9	-25.89	365.9	1,101.3	455.1	426.0	29.13	15.625			
7,200.0	7,153.5	7,163.7	7,044.6	18.4	24.0	-57.91	326.6	1,114.2	464.8	434.9	29.98	15.506			
7,300.0	7,247.8	7,250.0	7,113.8	18.4	24.0	-63.21	276.5	1,125.8	475.9	445.6	30.27	15.718			
7,400.0	7,335.3	7,328.8	7,169.9	18.4	24.0	-63.68	222.0	1,135.2	487.3	457.3	29.92	16.284			
7,500.0	7,413.2	7,407.9	7,218.3	18.3	24.1	-62.73	160.1	1,143.3	498.3	469.3	29.02	17.168			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 122-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	4,969.7	5,047.3	4,984.7	12.7	14.2	79.51	-97.8	777.5	496.9	470.3	26.59	18.689			
5,100.0	5,069.0	5,149.9	5,087.3	13.0	14.3	80.91	-96.7	776.3	493.3	466.4	26.95	18.303			
5,200.0	5,168.3	5,242.8	5,180.2	13.2	14.4	82.22	-96.1	775.1	490.3	463.0	27.29	17.970			
5,300.0	5,267.6	5,340.0	5,277.4	13.5	14.5	83.73	-96.9	773.7	488.6	461.0	27.61	17.700			
5,400.0	5,366.9	5,437.7	5,375.0	13.8	14.6	85.28	-98.1	772.4	487.6	459.6	27.92	17.464			
5,500.0	5,466.2	5,536.7	5,474.0	14.0	14.7	86.84	-99.2	771.2	487.0	458.7	28.23	17.250			
5,581.6	5,547.2	5,616.9	5,554.2	14.3	14.8	88.05	-99.9	770.5	486.8	458.3	28.49	17.089			
5,600.0	5,565.5	5,635.0	5,572.3	14.3	14.8	88.32	-100.0	770.5	486.8	458.2	28.54	17.054			
5,700.0	5,664.8	5,733.0	5,670.3	14.6	14.9	89.75	-100.8	770.3	487.2	458.3	28.86	16.882			
5,800.0	5,764.1	5,830.9	5,768.3	14.8	15.0	91.14	-101.7	770.4	488.1	458.9	29.17	16.732			
5,900.0	5,863.4	5,927.3	5,864.6	15.1	15.1	92.48	-102.9	770.9	489.8	460.3	29.48	16.614			
6,000.0	5,962.7	6,025.9	5,963.2	15.4	15.2	93.76	-104.0	772.2	492.1	462.3	29.81	16.512			
6,100.0	6,062.0	6,124.5	6,061.8	15.7	15.3	95.00	-105.2	773.8	494.9	464.7	30.12	16.428			
6,200.0	6,161.3	6,225.5	6,162.7	15.9	15.5	96.28	-106.5	775.3	497.8	467.4	30.44	16.355			
7,200.0	7,153.5	7,241.3	7,178.5	18.4	16.7	11.11	-103.6	771.4	496.6	464.6	32.00	15.519			
7,300.0	7,247.8	7,336.3	7,273.3	18.4	16.9	1.54	-100.9	768.8	460.7	430.0	30.71	15.003			
7,400.0	7,335.3	7,425.0	7,362.0	18.4	17.0	-3.55	-97.9	765.9	409.0	380.2	28.88	14.162			
7,500.0	7,413.2	7,502.8	7,439.7	18.3	17.1	-8.48	-94.8	762.8	343.2	316.4	26.75	12.830			
7,600.0	7,479.2	7,568.0	7,504.7	18.3	17.2	-16.37	-91.8	759.7	265.3	240.4	24.88	10.662			
7,700.0	7,531.4	7,616.4	7,553.0	18.3	17.3	-34.18	-89.1	757.1	178.6	153.4	25.16	7.096			
7,800.0	7,568.1	7,646.9	7,583.4	18.4	17.3	-70.88	-87.4	755.5	89.7	60.4	29.26	3.064			
7,877.8	7,585.2	7,659.8	7,596.3	18.6	17.4	-92.66	-86.8	754.9	45.7	15.7	29.95	1.526 CC, ES, SF			
7,900.0	7,588.2	7,661.6	7,598.1	18.7	17.4	-94.44	-86.7	754.8	50.8	20.8	29.96	1.696			
8,000.0	7,592.0	7,660.4	7,596.8	19.1	17.4	-84.70	-86.7	754.8	130.9	100.2	30.71	4.262			
8,100.0	7,592.0	7,655.2	7,591.6	19.7	17.4	-78.28	-87.0	755.1	227.3	196.2	31.19	7.289			
8,200.0	7,592.0	7,649.8	7,586.3	20.4	17.3	-72.06	-87.3	755.3	325.9	294.3	31.52	10.337			
8,300.0	7,592.0	7,644.3	7,580.8	21.2	17.3	-66.16	-87.6	755.6	425.0	393.3	31.70	13.407			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1E-2H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Reference Site:</b>	NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b>	KB=13' @ 5091.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	lone 1E-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

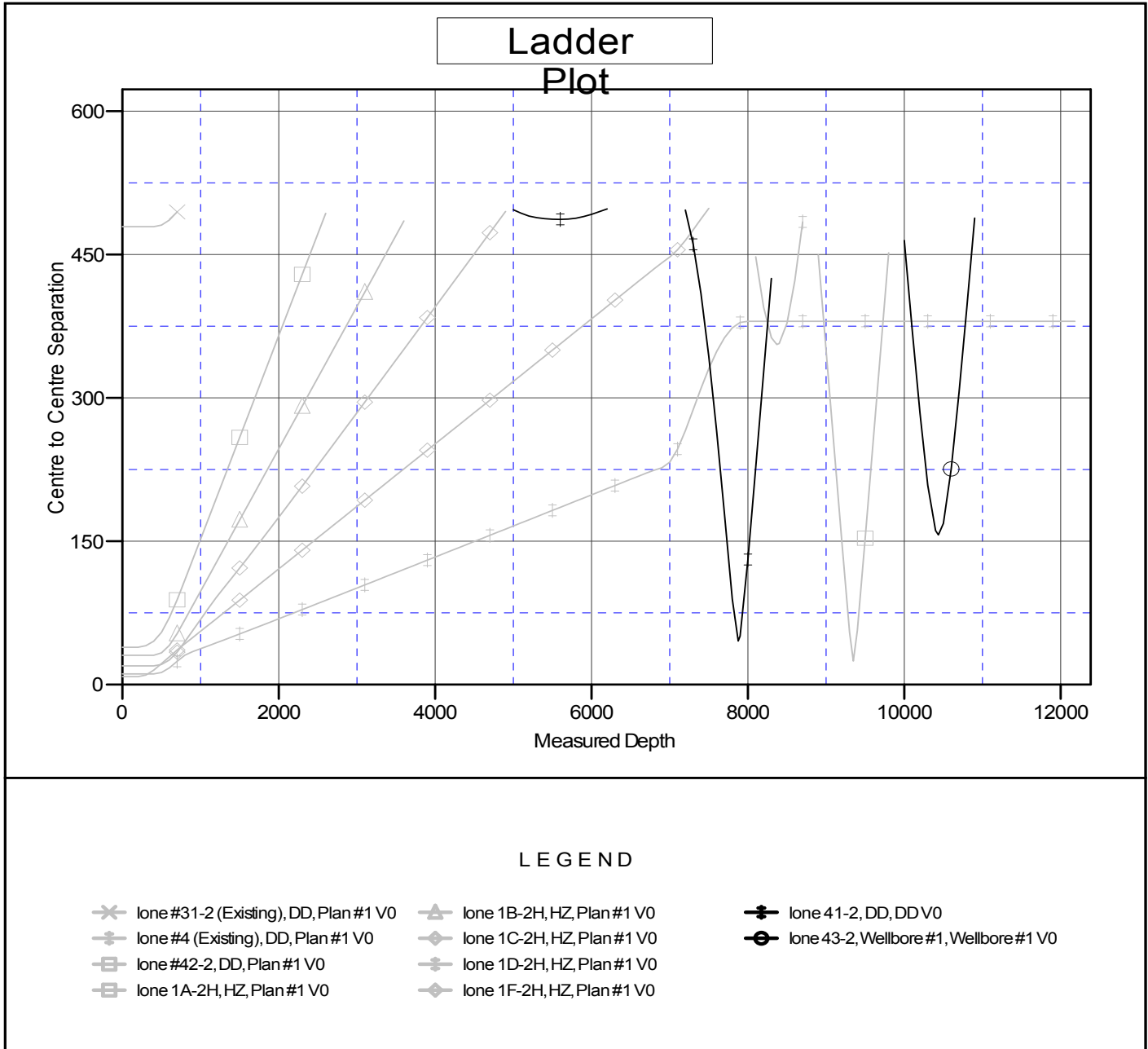
Offset Design													Offset Site Error:	0.0 ft	
Survey Program: 8083-Gyro													Offset Well Error:		0.0 ft
Reference															
Offset															
Semi Major Axis															
Distance															
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (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		
10,000.0	7,592.0	7,547.0	7,547.0	44.5	6.6	-90.00	-2,647.3	866.6	464.8	415.6	49.25	9.438			
10,100.0	7,592.0	7,547.0	7,547.0	46.1	6.6	-90.00	-2,647.3	866.6	372.2	321.3	50.92	7.310			
10,200.0	7,592.0	7,547.0	7,547.0	47.7	6.6	-90.00	-2,647.3	866.6	284.7	232.1	52.59	5.412			
10,300.0	7,592.0	7,547.0	7,547.0	49.3	6.6	-90.00	-2,647.3	866.6	208.6	154.3	54.27	3.843			
10,400.0	7,592.0	7,547.0	7,547.0	50.9	6.6	-90.00	-2,647.3	866.6	161.1	105.2	55.96	2.880			
10,437.6	7,592.0	7,547.0	7,547.0	51.6	6.6	-90.00	-2,647.3	866.6	156.7	100.1	56.60	2.768	CC, ES, SF		
10,500.0	7,592.0	7,547.0	7,547.0	52.6	6.6	-90.00	-2,647.3	866.6	168.6	111.0	57.65	2.925			
10,600.0	7,592.0	7,547.0	7,547.0	54.2	6.6	-90.00	-2,647.3	866.6	225.6	166.3	59.34	3.802			
10,700.0	7,592.0	7,547.0	7,547.0	55.9	6.6	-90.00	-2,647.3	866.6	305.6	244.5	61.04	5.006			
10,800.0	7,592.0	7,547.0	7,547.0	57.5	6.6	-90.00	-2,647.3	866.6	394.8	332.0	62.74	6.292			
10,900.0	7,592.0	7,547.0	7,547.0	59.2	6.6	-90.00	-2,647.3	866.6	488.2	423.7	64.45	7.575			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b> EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b> Well lone 1E-2H	
<b>Project:</b> DJ Wattenberg	<b>TVD Reference:</b> KB=13' @ 5091.0ft (Original Well Elev)	
<b>Reference Site:</b> NWNE S2-T2N-R66W (lone)	<b>MD Reference:</b> KB=13' @ 5091.0ft (Original Well Elev)	
<b>Site Error:</b> 0.0ft	<b>North Reference:</b> True	
<b>Reference Well:</b> lone 1E-2H	<b>Survey Calculation Method:</b> Minimum Curvature	
<b>Well Error:</b> 0.0ft	<b>Output errors are at</b> 2.00 sigma	
<b>Reference Wellbore</b> HZ	<b>Database:</b> USA EDM 5000 Multi Users DB	
<b>Reference Design:</b> Plan #1	<b>Offset TVD Reference:</b> Offset Datum	

Reference Depths are relative to KB=13' @ 5091.0ft (Original Well Elev)      Coordinates are relative to: lone 1E-2H  
 Offset Depths are relative to Offset Datum      Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is -105.500000 °      Grid Convergence at Surface is: 0.49°



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