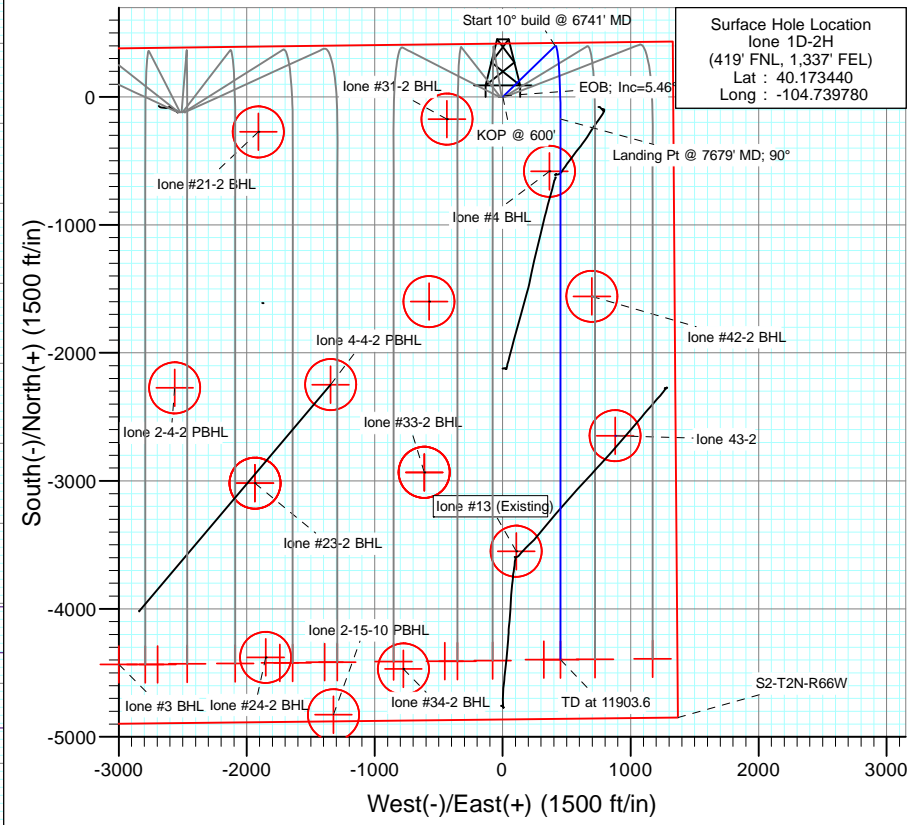


SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSEct	Target	
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	0.0	
3	873.2	5.46	45.76	872.8	9.1	9.3	2.00	45.76	-9.1		
4	6741.5	5.46	45.76	6714.4	398.8	409.6	0.00	0.00	-398.8		
5	7679.6	90.00	180.00	7324.0	-172.8	451.4	10.00	134.11	172.8		
6	11903.6	90.00	180.00	7324.0	-4396.8	451.4	0.00	0.00	4396.8	Ione 1D-2H PBHL (460' FSL, 1,050' FEL) NEW	



Surface Hole Location  
 Ione 1D-2H  
 (419' FNL, 1,337' FEL)  
 Lat : 40.173440  
 Long : -104.739780

DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Ione 1D-2H PBHL (460' FSL, 1,050' FEL)	-4396.8	321.4	1302546.39	3212799.63	40.161370	-104.738630
Ione 1D-2H PBHL (460' FSL, 1,050' FEL) NEW	4396.8	451.4	1302547.50	3212929.61	40.161370	-104.738165

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4522.0	4539.1	Sussex
4809.0	4827.4	Sussex Marker
5279.0	5299.5	Shannon
6530.0	6556.2	Teepee Buttes
7198.0	7291.8	Sharon Springs
7273.0	7435.7	Niobrara
7314.0	7572.2	B Chalk

**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 1D-2H  
 125XXX; LR  
 KB=13' @ 5091.0ft (Original Well Elev)  
 Ground Elevation @ 5078.0  
 North American Datum 1983  
 Well Ione 1D-2H, True North

Vertical Section at 180.00° (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 1D-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 1D-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 1D-2H						
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,306,940.32 ft	<b>Latitude:</b>	40.173440
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	3,212,440.53 ft	<b>Longitude:</b>	-104.739780
<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	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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
873.2	5.46	45.76	872.8	9.1	9.3	2.00	2.00	0.00	45.76	
6,741.5	5.46	45.76	6,714.4	398.8	409.6	0.00	0.00	0.00	0.00	
7,679.6	90.00	180.00	7,324.0	-172.8	451.4	10.00	9.01	14.31	134.11	
11,903.6	90.00	180.00	7,324.0	-4,396.8	451.4	0.00	0.00	0.00	0.00	lone 1D-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 1D-2H  
**Wellbore:** HZ  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Ione 1D-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	
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	KOP @ 600'
700.0	2.00	45.76	700.0	1.2	1.3	-1.2	2.00	2.00	
800.0	4.00	45.76	799.8	4.9	5.0	-4.9	2.00	2.00	
873.2	5.46	45.76	872.8	9.1	9.3	-9.1	2.00	2.00	EOB; Inc=5.46°
900.0	5.46	45.76	899.5	10.9	11.2	-10.9	0.00	0.00	
1,000.0	5.46	45.76	999.0	17.5	18.0	-17.5	0.00	0.00	
1,100.0	5.46	45.76	1,098.6	24.1	24.8	-24.1	0.00	0.00	
1,200.0	5.46	45.76	1,198.1	30.8	31.6	-30.8	0.00	0.00	
1,300.0	5.46	45.76	1,297.6	37.4	38.4	-37.4	0.00	0.00	
1,400.0	5.46	45.76	1,397.2	44.1	45.3	-44.1	0.00	0.00	
1,500.0	5.46	45.76	1,496.7	50.7	52.1	-50.7	0.00	0.00	
1,600.0	5.46	45.76	1,596.3	57.4	58.9	-57.4	0.00	0.00	
1,700.0	5.46	45.76	1,695.8	64.0	65.7	-64.0	0.00	0.00	
1,800.0	5.46	45.76	1,795.4	70.6	72.5	-70.6	0.00	0.00	
1,900.0	5.46	45.76	1,894.9	77.3	79.4	-77.3	0.00	0.00	
2,000.0	5.46	45.76	1,994.5	83.9	86.2	-83.9	0.00	0.00	
2,100.0	5.46	45.76	2,094.0	90.6	93.0	-90.6	0.00	0.00	
2,200.0	5.46	45.76	2,193.6	97.2	99.8	-97.2	0.00	0.00	
2,300.0	5.46	45.76	2,293.1	103.8	106.7	-103.8	0.00	0.00	
2,400.0	5.46	45.76	2,392.7	110.5	113.5	-110.5	0.00	0.00	
2,500.0	5.46	45.76	2,492.2	117.1	120.3	-117.1	0.00	0.00	
2,600.0	5.46	45.76	2,591.7	123.8	127.1	-123.8	0.00	0.00	
2,700.0	5.46	45.76	2,691.3	130.4	133.9	-130.4	0.00	0.00	
2,800.0	5.46	45.76	2,790.8	137.1	140.8	-137.1	0.00	0.00	
2,900.0	5.46	45.76	2,890.4	143.7	147.6	-143.7	0.00	0.00	
3,000.0	5.46	45.76	2,989.9	150.3	154.4	-150.3	0.00	0.00	
3,100.0	5.46	45.76	3,089.5	157.0	161.2	-157.0	0.00	0.00	
3,200.0	5.46	45.76	3,189.0	163.6	168.0	-163.6	0.00	0.00	
3,300.0	5.46	45.76	3,288.6	170.3	174.9	-170.3	0.00	0.00	
3,400.0	5.46	45.76	3,388.1	176.9	181.7	-176.9	0.00	0.00	
3,500.0	5.46	45.76	3,487.7	183.5	188.5	-183.5	0.00	0.00	
3,600.0	5.46	45.76	3,587.2	190.2	195.3	-190.2	0.00	0.00	
3,700.0	5.46	45.76	3,686.7	196.8	202.2	-196.8	0.00	0.00	
3,800.0	5.46	45.76	3,786.3	203.5	209.0	-203.5	0.00	0.00	
3,900.0	5.46	45.76	3,885.8	210.1	215.8	-210.1	0.00	0.00	
4,000.0	5.46	45.76	3,985.4	216.8	222.6	-216.8	0.00	0.00	
4,100.0	5.46	45.76	4,084.9	223.4	229.4	-223.4	0.00	0.00	
4,200.0	5.46	45.76	4,184.5	230.0	236.3	-230.0	0.00	0.00	
4,300.0	5.46	45.76	4,284.0	236.7	243.1	-236.7	0.00	0.00	
4,400.0	5.46	45.76	4,383.6	243.3	249.9	-243.3	0.00	0.00	
4,500.0	5.46	45.76	4,483.1	250.0	256.7	-250.0	0.00	0.00	
4,539.1	5.46	45.76	4,522.0	252.6	259.4	-252.6	0.00	0.00	Sussex
4,600.0	5.46	45.76	4,582.7	256.6	263.5	-256.6	0.00	0.00	
4,700.0	5.46	45.76	4,682.2	263.3	270.4	-263.3	0.00	0.00	
4,800.0	5.46	45.76	4,781.7	269.9	277.2	-269.9	0.00	0.00	
4,827.4	5.46	45.76	4,809.0	271.7	279.1	-271.7	0.00	0.00	Sussex Marker

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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
4,900.0	5.46	45.76	4,881.3	276.5	284.0	-276.5	0.00	0.00	
5,000.0	5.46	45.76	4,980.8	283.2	290.8	-283.2	0.00	0.00	
5,100.0	5.46	45.76	5,080.4	289.8	297.7	-289.8	0.00	0.00	
5,200.0	5.46	45.76	5,179.9	296.5	304.5	-296.5	0.00	0.00	
5,299.5	5.46	45.76	5,279.0	303.1	311.3	-303.1	0.00	0.00	Shannon
5,300.0	5.46	45.76	5,279.5	303.1	311.3	-303.1	0.00	0.00	
5,400.0	5.46	45.76	5,379.0	309.7	318.1	-309.7	0.00	0.00	
5,500.0	5.46	45.76	5,478.6	316.4	324.9	-316.4	0.00	0.00	
5,600.0	5.46	45.76	5,578.1	323.0	331.8	-323.0	0.00	0.00	
5,700.0	5.46	45.76	5,677.7	329.7	338.6	-329.7	0.00	0.00	
5,800.0	5.46	45.76	5,777.2	336.3	345.4	-336.3	0.00	0.00	
5,900.0	5.46	45.76	5,876.8	343.0	352.2	-343.0	0.00	0.00	
6,000.0	5.46	45.76	5,976.3	349.6	359.0	-349.6	0.00	0.00	
6,100.0	5.46	45.76	6,075.8	356.2	365.9	-356.2	0.00	0.00	
6,200.0	5.46	45.76	6,175.4	362.9	372.7	-362.9	0.00	0.00	
6,300.0	5.46	45.76	6,274.9	369.5	379.5	-369.5	0.00	0.00	
6,400.0	5.46	45.76	6,374.5	376.2	386.3	-376.2	0.00	0.00	
6,500.0	5.46	45.76	6,474.0	382.8	393.2	-382.8	0.00	0.00	
6,556.2	5.46	45.76	6,530.0	386.5	397.0	-386.5	0.00	0.00	Teepee Buttes
6,600.0	5.46	45.76	6,573.6	389.4	400.0	-389.4	0.00	0.00	
6,700.0	5.46	45.76	6,673.1	396.1	406.8	-396.1	0.00	0.00	
6,741.5	5.46	45.76	6,714.4	398.8	409.6	-398.8	0.00	0.00	Start 10° build @ 6741' MD
6,800.0	4.42	117.55	6,772.8	399.7	413.6	-399.7	10.00	-1.78	
6,900.0	12.66	162.23	6,871.6	387.5	420.4	-387.5	10.00	8.24	
7,000.0	22.37	170.42	6,966.9	358.2	426.9	-358.2	10.00	9.72	
7,100.0	32.26	173.77	7,055.7	312.8	433.0	-312.8	10.00	9.88	
7,200.0	42.19	175.66	7,135.2	252.7	438.5	-252.7	10.00	9.93	
7,291.8	51.33	176.86	7,198.0	186.0	442.8	-186.0	10.00	9.96	Sharon Springs
7,300.0	52.15	176.95	7,203.1	179.6	443.1	-179.6	10.00	9.96	
7,400.0	62.11	177.92	7,257.3	95.8	446.8	-95.8	10.00	9.97	
7,435.7	65.67	178.22	7,273.0	63.7	447.9	-63.7	10.00	9.97	Niobrara
7,500.0	72.09	178.73	7,296.2	3.8	449.5	-3.8	10.00	9.97	
7,572.2	79.29	179.26	7,314.0	-66.1	450.7	66.1	10.00	9.98	B Chalk
7,600.0	82.06	179.45	7,318.5	-93.5	451.0	93.5	10.00	9.98	
7,679.6	90.00	180.00	7,324.0	-172.8	451.4	172.8	10.00	9.98	Landing Pt @ 7679' MD; 90°
7,700.0	90.00	180.00	7,324.0	-193.3	451.4	193.3	0.00	0.00	
7,800.0	90.00	180.00	7,324.0	-293.3	451.4	293.3	0.00	0.00	
7,900.0	90.00	180.00	7,324.0	-393.3	451.4	393.3	0.00	0.00	
8,000.0	90.00	180.00	7,324.0	-493.3	451.4	493.3	0.00	0.00	
8,100.0	90.00	180.00	7,324.0	-593.3	451.4	593.3	0.00	0.00	
8,200.0	90.00	180.00	7,324.0	-693.3	451.4	693.3	0.00	0.00	
8,300.0	90.00	180.00	7,324.0	-793.3	451.4	793.3	0.00	0.00	
8,400.0	90.00	180.00	7,324.0	-893.3	451.4	893.3	0.00	0.00	
8,500.0	90.00	180.00	7,324.0	-993.3	451.4	993.3	0.00	0.00	
8,600.0	90.00	180.00	7,324.0	-1,093.3	451.4	1,093.3	0.00	0.00	
8,700.0	90.00	180.00	7,324.0	-1,193.3	451.4	1,193.3	0.00	0.00	
8,800.0	90.00	180.00	7,324.0	-1,293.3	451.4	1,293.3	0.00	0.00	
8,900.0	90.00	180.00	7,324.0	-1,393.3	451.4	1,393.3	0.00	0.00	
9,000.0	90.00	180.00	7,324.0	-1,493.3	451.4	1,493.3	0.00	0.00	
9,100.0	90.00	180.00	7,324.0	-1,593.3	451.4	1,593.3	0.00	0.00	
9,200.0	90.00	180.00	7,324.0	-1,693.3	451.4	1,693.3	0.00	0.00	
9,300.0	90.00	180.00	7,324.0	-1,793.3	451.4	1,793.3	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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
9,400.0	90.00	180.00	7,324.0	-1,893.3	451.4	1,893.3	0.00	0.00	
9,500.0	90.00	180.00	7,324.0	-1,993.3	451.4	1,993.3	0.00	0.00	
9,600.0	90.00	180.00	7,324.0	-2,093.3	451.4	2,093.3	0.00	0.00	
9,700.0	90.00	180.00	7,324.0	-2,193.3	451.4	2,193.3	0.00	0.00	
9,800.0	90.00	180.00	7,324.0	-2,293.3	451.4	2,293.3	0.00	0.00	
9,900.0	90.00	180.00	7,324.0	-2,393.3	451.4	2,393.3	0.00	0.00	
10,000.0	90.00	180.00	7,324.0	-2,493.3	451.4	2,493.3	0.00	0.00	
10,100.0	90.00	180.00	7,324.0	-2,593.3	451.4	2,593.3	0.00	0.00	
10,200.0	90.00	180.00	7,324.0	-2,693.3	451.4	2,693.3	0.00	0.00	
10,300.0	90.00	180.00	7,324.0	-2,793.3	451.4	2,793.3	0.00	0.00	
10,400.0	90.00	180.00	7,324.0	-2,893.3	451.4	2,893.3	0.00	0.00	
10,500.0	90.00	180.00	7,324.0	-2,993.3	451.4	2,993.3	0.00	0.00	
10,600.0	90.00	180.00	7,324.0	-3,093.3	451.4	3,093.3	0.00	0.00	
10,700.0	90.00	180.00	7,324.0	-3,193.3	451.4	3,193.3	0.00	0.00	
10,800.0	90.00	180.00	7,324.0	-3,293.3	451.4	3,293.3	0.00	0.00	
10,900.0	90.00	180.00	7,324.0	-3,393.3	451.4	3,393.3	0.00	0.00	
11,000.0	90.00	180.00	7,324.0	-3,493.3	451.4	3,493.3	0.00	0.00	
11,100.0	90.00	180.00	7,324.0	-3,593.3	451.4	3,593.3	0.00	0.00	
11,200.0	90.00	180.00	7,324.0	-3,693.3	451.4	3,693.3	0.00	0.00	
11,300.0	90.00	180.00	7,324.0	-3,793.3	451.4	3,793.3	0.00	0.00	
11,400.0	90.00	180.00	7,324.0	-3,893.3	451.4	3,893.3	0.00	0.00	
11,500.0	90.00	180.00	7,324.0	-3,993.3	451.4	3,993.3	0.00	0.00	
11,600.0	90.00	180.00	7,324.0	-4,093.3	451.4	4,093.3	0.00	0.00	
11,700.0	90.00	180.00	7,324.0	-4,193.3	451.4	4,193.3	0.00	0.00	
11,800.0	90.00	180.00	7,324.0	-4,293.3	451.4	4,293.3	0.00	0.00	
11,900.0	90.00	180.00	7,324.0	-4,393.3	451.4	4,393.3	0.00	0.00	
11,903.6	90.00	180.00	7,324.0	-4,396.8	451.4	4,396.8	0.00	0.00	TD at 11903.6 - lone 1D-2H PBHL (460' FSL, 1,

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
lone 1D-2H PBHL (460' - hit/miss target - Shape - Point	0.00	0.00	7,324.0	-4,396.8	451.4	1,302,547.50	3,212,929.61	40.161370	-104.738165
lone 1D-2H PBHL (460' - plan misses target center by 130.0ft at 11903.6ft MD (7324.0 TVD, -4396.8 N, 451.4 E) - Point	0.00	0.00	7,324.0	-4,396.8	321.4	1,302,546.39	3,212,799.63	40.161370	-104.738630

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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 (°)	
4,539.1	4,522.0	Sussex				
4,827.4	4,809.0	Sussex Marker				
5,299.5	5,279.0	Shannon				
6,556.2	6,530.0	Teepee Buttes				
7,291.8	7,198.0	Sharon Springs				
7,435.7	7,273.0	Niobrara				
7,572.2	7,314.0	B Chalk				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
600.0	600.0	0.0	0.0	KOP @ 600'	
873.2	872.8	9.1	9.3	EOB; Inc=5.46°	
6,741.5	6,714.4	398.8	409.6	Start 10° build @ 6741' MD	
7,679.6	7,324.0	-172.8	451.4	Landing Pt @ 7679' MD; 90°	
11,903.6	7,324.0	-4,396.8	451.4	TD at 11903.6	

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

**DJ Wattenberg**

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

**lone 1D-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 1D-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 1D-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	11,903.6	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 1D-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 1D-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	11,056.3	7,301.0	346.3	268.3	4.441	CC, ES
lone #13 (Existing) - HZ - Plan #1	11,100.0	7,301.0	349.1	270.3	4.434	SF
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	600.0	605.0	468.8	466.7	228.191	CC, ES
lone #31-2 (Existing) - DD - Plan #1	1,000.0	1,004.0	492.0	488.6	142.532	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	8,088.1	7,332.0	86.2	55.8	2.837	CC, ES, SF
lone #42-2 - DD - Plan #1	9,065.1	7,317.0	245.0	200.5	5.501	CC, ES
lone #42-2 - DD - Plan #1	9,100.0	7,317.0	247.5	202.4	5.487	SF
lone 1A-2H - HZ - Plan #1	200.0	200.0	27.9	27.3	42.810	CC, ES
lone 1A-2H - HZ - Plan #1	500.0	496.4	42.4	40.6	24.176	SF
lone 1B-2H - HZ - Plan #1	400.0	400.0	19.6	18.2	14.480	CC, ES
lone 1B-2H - HZ - Plan #1	600.0	598.8	24.5	22.4	11.855	SF
lone 1C-2H - HZ - Plan #1	600.0	600.0	8.4	6.3	4.091	CC, ES
lone 1C-2H - HZ - Plan #1	700.0	700.0	9.7	7.3	4.049	SF
lone 1E-2H - HZ - Plan #1	400.0	400.0	11.2	9.8	8.274	CC, ES
lone 1E-2H - HZ - Plan #1	11,903.6	12,183.6	380.2	264.1	3.273	SF
lone 1F-2H - HZ - Plan #1	200.0	200.0	19.6	18.9	29.967	CC, ES
lone 1F-2H - HZ - Plan #1	400.0	398.4	26.1	24.8	19.304	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	7,609.4	7,402.8	326.9	297.8	11.243	CC, ES, SF
lone 43-2 - Wellbore #1 - Wellbore #1	10,154.0	7,279.0	426.4	370.2	7.588	CC, ES
lone 43-2 - Wellbore #1 - Wellbore #1	10,200.0	7,279.0	428.8	371.9	7.528	SF
lone 4-4-2 - Wellbore #1 - Plan #1						Out of range
lone 6-4-2 (Existing) - Existing - Existing	9,627.2	7,602.0	431.7	361.2	6.124	CC, ES
lone 6-4-2 (Existing) - Existing - Existing	9,700.0	7,601.5	437.8	366.1	6.106	SF
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 1D-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 1D-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		
10,700.0	7,324.0	7,301.0	7,301.0	59.7	12.7	90.00	-3,549.5	105.1	496.9	425.0	71.87	6.914			
10,800.0	7,324.0	7,301.0	7,301.0	61.4	12.7	90.00	-3,549.5	105.1	430.8	357.2	73.58	5.855			
10,900.0	7,324.0	7,301.0	7,301.0	63.1	12.7	90.00	-3,549.5	105.1	379.9	304.6	75.29	5.046			
11,000.0	7,324.0	7,301.0	7,301.0	64.8	12.7	90.00	-3,549.5	105.1	350.9	273.8	77.01	4.556			
11,056.3	7,324.0	7,301.0	7,301.0	65.7	12.7	90.00	-3,549.5	105.1	346.3	268.3	77.98	4.441	CC, ES		
11,100.0	7,324.0	7,301.0	7,301.0	66.5	12.7	90.00	-3,549.5	105.1	349.1	270.3	78.73	4.434	SF		
11,200.0	7,324.0	7,301.0	7,301.0	68.2	12.7	90.00	-3,549.5	105.1	375.0	294.5	80.45	4.661			
11,300.0	7,324.0	7,301.0	7,301.0	69.9	12.7	90.00	-3,549.5	105.1	423.5	341.3	82.17	5.154			
11,400.0	7,324.0	7,301.0	7,301.0	71.6	12.7	90.00	-3,549.5	105.1	487.9	404.0	83.90	5.816			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	5.0	5.0	0.0	0.0	-111.76	-173.7	-435.4	468.8						
100.0	100.0	105.0	105.0	0.2	0.2	-111.76	-173.7	-435.4	468.8	468.5	0.31	1,517.403			
200.0	200.0	205.0	205.0	0.3	0.3	-111.76	-173.7	-435.4	468.8	468.1	0.66	712.415			
300.0	300.0	305.0	305.0	0.5	0.5	-111.76	-173.7	-435.4	468.8	467.8	1.01	465.478			
400.0	400.0	405.0	405.0	0.7	0.7	-111.76	-173.7	-435.4	468.8	467.4	1.36	345.664			
500.0	500.0	505.0	505.0	0.8	0.9	-111.76	-173.7	-435.4	468.8	467.1	1.71	274.903			
600.0	600.0	605.0	605.0	1.0	1.0	-111.76	-173.7	-435.4	468.8	466.7	2.05	228.191 CC, ES			
700.0	700.0	705.0	705.0	1.2	1.2	-157.59	-173.7	-435.4	470.4	468.0	2.40	195.769			
800.0	799.8	804.8	804.8	1.4	1.4	-157.79	-173.7	-435.4	475.2	472.5	2.75	172.783			
900.0	899.5	904.5	904.5	1.6	1.6	-158.14	-173.7	-435.4	483.2	480.1	3.10	155.910			
1,000.0	999.0	1,004.0	1,004.0	1.8	1.7	-158.55	-173.7	-435.4	492.0	488.6	3.45	142.532 SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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		
7,600.0	7,318.5	7,326.5	7,326.5	15.6	12.8	53.36	-581.4	365.2	495.3	472.5	22.83	21.698			
7,700.0	7,324.0	7,332.0	7,332.0	16.0	12.8	90.00	-581.4	365.2	397.5	370.8	26.70	14.890			
7,800.0	7,324.0	7,332.0	7,332.0	16.7	12.8	90.00	-581.4	365.2	300.7	273.3	27.43	10.962			
7,900.0	7,324.0	7,332.0	7,332.0	17.5	12.8	90.00	-581.4	365.2	206.9	178.6	28.33	7.304			
8,000.0	7,324.0	7,332.0	7,332.0	18.4	12.8	90.00	-581.4	365.2	123.2	93.9	29.36	4.197			
8,088.1	7,324.0	7,332.0	7,332.0	19.3	12.8	90.00	-581.4	365.2	86.2	55.8	30.37	2.837	CC, ES, SF		
8,100.0	7,324.0	7,332.0	7,332.0	19.4	12.8	90.00	-581.4	365.2	87.0	56.5	30.51	2.851			
8,200.0	7,324.0	7,332.0	7,332.0	20.6	12.8	90.00	-581.4	365.2	141.2	109.5	31.75	4.448			
8,300.0	7,324.0	7,332.0	7,332.0	21.8	12.8	90.00	-581.4	365.2	228.8	195.7	33.07	6.918			
8,400.0	7,324.0	7,332.0	7,332.0	23.1	12.8	90.00	-581.4	365.2	323.6	289.1	34.44	9.395			
8,500.0	7,324.0	7,332.0	7,332.0	24.4	12.8	90.00	-581.4	365.2	420.8	384.9	35.87	11.731			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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		
8,700.0	7,324.0	7,317.0	7,317.0	27.3	12.7	-90.00	-1,558.4	696.4	439.7	400.9	38.82	11.325			
8,800.0	7,324.0	7,317.0	7,317.0	28.7	12.7	-90.00	-1,558.4	696.4	361.0	320.6	40.36	8.944			
8,900.0	7,324.0	7,317.0	7,317.0	30.2	12.7	-90.00	-1,558.4	696.4	295.4	253.5	41.92	7.048			
9,000.0	7,324.0	7,317.0	7,317.0	31.8	12.7	-90.00	-1,558.4	696.4	253.5	210.0	43.50	5.828			
9,065.1	7,324.0	7,317.0	7,317.0	32.8	12.7	-90.00	-1,558.4	696.4	245.0	200.5	44.54	5.501 CC, ES			
9,100.0	7,324.0	7,317.0	7,317.0	33.3	12.7	-90.00	-1,558.4	696.4	247.5	202.4	45.10	5.487 SF			
9,200.0	7,324.0	7,317.0	7,317.0	34.9	12.7	-90.00	-1,558.4	696.4	279.7	233.0	46.72	5.987			
9,300.0	7,324.0	7,317.0	7,317.0	36.5	12.7	-90.00	-1,558.4	696.4	339.4	291.1	48.34	7.021			
9,400.0	7,324.0	7,317.0	7,317.0	38.1	12.7	-90.00	-1,558.4	696.4	415.0	365.0	49.98	8.302			
9,500.0	7,324.0	7,317.0	7,317.0	39.7	12.7	-90.00	-1,558.4	696.4	499.2	447.5	51.63	9.668			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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	-27.9	27.9						
100.0	100.0	100.0	100.0	0.2	0.2	-89.95	0.0	-27.9	27.9	27.6	0.30	92.016			
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-27.9	27.9	27.3	0.65	42.810 CC, ES			
300.0	300.0	299.1	299.1	0.5	0.5	-88.44	0.8	-29.5	29.5	28.5	1.00	29.392			
400.0	400.0	398.0	397.8	0.7	0.7	-84.74	3.1	-34.0	34.2	32.9	1.37	25.039			
500.0	500.0	496.4	495.8	0.8	0.9	-80.46	7.0	-41.6	42.4	40.6	1.75	24.176 SF			
600.0	600.0	594.5	593.3	1.0	1.2	-76.69	12.3	-52.0	53.8	51.7	2.16	24.984			
700.0	700.0	693.6	691.6	1.2	1.4	-120.90	18.1	-63.3	67.2	64.8	2.40	28.035			
800.0	799.8	792.4	789.6	1.4	1.7	-121.87	23.8	-74.6	82.5	79.7	2.76	29.891			
900.0	899.5	890.9	887.2	1.6	2.0	-124.16	29.6	-85.8	99.5	96.4	3.13	31.747			
1,000.0	999.0	989.2	984.7	1.8	2.2	-126.30	35.3	-97.0	117.3	113.7	3.52	33.284			
1,100.0	1,098.6	1,087.5	1,082.3	2.0	2.5	-127.88	41.0	-108.3	135.1	131.2	3.92	34.501			
1,200.0	1,198.1	1,185.9	1,179.8	2.2	2.8	-129.09	46.8	-119.5	153.0	148.7	4.31	35.485			
1,300.0	1,297.6	1,284.2	1,277.3	2.5	3.1	-130.05	52.5	-130.7	171.0	166.3	4.71	36.296			
1,400.0	1,397.2	1,382.5	1,374.8	2.7	3.4	-130.82	58.2	-141.9	189.1	183.9	5.11	36.976			
1,500.0	1,496.7	1,480.9	1,472.3	2.9	3.6	-131.46	63.9	-153.2	207.1	201.6	5.51	37.553			
1,600.0	1,596.3	1,579.2	1,569.9	3.2	3.9	-131.99	69.7	-164.4	225.2	219.3	5.92	38.049			
1,700.0	1,695.8	1,677.5	1,667.4	3.4	4.2	-132.45	75.4	-175.6	243.3	236.9	6.32	38.479			
1,800.0	1,795.4	1,775.9	1,764.9	3.6	4.5	-132.85	81.1	-186.8	261.4	254.6	6.73	38.857			
1,900.0	1,894.9	1,874.2	1,862.4	3.9	4.7	-133.19	86.9	-198.0	279.5	272.3	7.13	39.190			
2,000.0	1,994.5	1,972.5	1,960.0	4.1	5.0	-133.49	92.6	-209.3	297.6	290.1	7.54	39.486			
2,100.0	2,094.0	2,070.9	2,057.5	4.3	5.3	-133.76	98.3	-220.5	315.7	307.8	7.94	39.751			
2,200.0	2,193.6	2,169.2	2,155.0	4.6	5.6	-133.99	104.1	-231.7	333.8	325.5	8.35	39.990			
2,300.0	2,293.1	2,267.5	2,252.5	4.8	5.9	-134.21	109.8	-242.9	352.0	343.2	8.75	40.206			
2,400.0	2,392.7	2,365.9	2,350.0	5.0	6.1	-134.40	115.5	-254.2	370.1	361.0	9.16	40.403			
2,500.0	2,492.2	2,464.2	2,447.6	5.3	6.4	-134.57	121.2	-265.4	388.3	378.7	9.57	40.582			
2,600.0	2,591.7	2,562.5	2,545.1	5.5	6.7	-134.73	127.0	-276.6	406.4	396.4	9.97	40.747			
2,700.0	2,691.3	2,660.9	2,642.6	5.8	7.0	-134.88	132.7	-287.8	424.6	414.2	10.38	40.898			
2,800.0	2,790.8	2,759.2	2,740.1	6.0	7.3	-135.01	138.4	-299.0	442.7	431.9	10.79	41.038			
2,900.0	2,890.4	2,857.5	2,837.7	6.2	7.5	-135.13	144.2	-310.3	460.9	449.7	11.20	41.167			
3,000.0	2,989.9	2,955.9	2,935.2	6.5	7.8	-135.24	149.9	-321.5	479.0	467.4	11.60	41.287			
3,100.0	3,089.5	3,054.2	3,032.7	6.7	8.1	-135.35	155.6	-332.7	497.2	485.2	12.01	41.399			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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				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	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	499.5	499.5	0.8	0.9	-86.17	1.4	-20.6	20.7	19.0	1.70	12.153										
600.0	600.0	598.8	598.7	1.0	1.0	-77.09	5.5	-23.8	24.5	22.4	2.06	11.855	SF									
700.0	700.0	698.3	697.9	1.2	1.2	-116.46	11.6	-28.6	31.7	29.2	2.41	13.143										
800.0	799.8	797.9	797.1	1.4	1.4	-116.83	17.8	-33.5	40.7	37.9	2.77	14.663										
900.0	899.5	897.3	896.2	1.6	1.7	-120.38	24.1	-38.3	51.3	48.2	3.16	16.254										
1,000.0	999.0	996.6	995.2	1.8	1.9	-123.53	30.3	-43.2	62.6	59.1	3.55	17.634										
1,100.0	1,098.6	1,095.9	1,094.2	2.0	2.1	-125.70	36.6	-48.1	74.0	70.1	3.95	18.747										
1,200.0	1,198.1	1,195.2	1,193.2	2.2	2.3	-127.30	42.8	-52.9	85.5	81.2	4.35	19.660										
1,300.0	1,297.6	1,294.5	1,292.2	2.5	2.5	-128.51	49.0	-57.8	97.1	92.3	4.75	20.420										
1,400.0	1,397.2	1,393.9	1,391.2	2.7	2.7	-129.47	55.3	-62.7	108.7	103.5	5.16	21.060										
1,500.0	1,496.7	1,493.2	1,490.2	2.9	3.0	-130.24	61.5	-67.5	120.3	114.7	5.57	21.607										
1,600.0	1,596.3	1,592.5	1,589.2	3.2	3.2	-130.88	67.8	-72.4	131.9	125.9	5.97	22.079										
1,700.0	1,695.8	1,691.8	1,688.2	3.4	3.4	-131.41	74.0	-77.2	143.5	137.1	6.38	22.490										
1,800.0	1,795.4	1,791.1	1,787.2	3.6	3.6	-131.87	80.2	-82.1	155.2	148.4	6.79	22.851										
1,900.0	1,894.9	1,890.4	1,886.2	3.9	3.8	-132.26	86.5	-87.0	166.8	159.6	7.20	23.171										
2,000.0	1,994.5	1,989.7	1,985.2	4.1	4.0	-132.59	92.7	-91.8	178.5	170.9	7.61	23.456										
2,100.0	2,094.0	2,089.0	2,084.2	4.3	4.3	-132.89	99.0	-96.7	190.2	182.1	8.02	23.711										
2,200.0	2,193.6	2,188.4	2,183.2	4.6	4.5	-133.15	105.2	-101.6	201.8	193.4	8.43	23.941										
2,300.0	2,293.1	2,287.7	2,282.2	4.8	4.7	-133.39	111.4	-106.4	213.5	204.7	8.84	24.150										
2,400.0	2,392.7	2,387.0	2,381.2	5.0	4.9	-133.60	117.7	-111.3	225.2	215.9	9.25	24.340										
2,500.0	2,492.2	2,486.3	2,480.1	5.3	5.2	-133.79	123.9	-116.2	236.9	227.2	9.66	24.513										
2,600.0	2,591.7	2,585.6	2,579.1	5.5	5.4	-133.96	130.2	-121.0	248.5	238.5	10.07	24.672										
2,700.0	2,691.3	2,684.9	2,678.1	5.8	5.6	-134.12	136.4	-125.9	260.2	249.7	10.49	24.819										
2,800.0	2,790.8	2,784.2	2,777.1	6.0	5.8	-134.26	142.6	-130.8	271.9	261.0	10.90	24.954										
2,900.0	2,890.4	2,883.5	2,876.1	6.2	6.0	-134.39	148.9	-135.6	283.6	272.3	11.31	25.079										
3,000.0	2,989.9	2,982.9	2,975.1	6.5	6.3	-134.51	155.1	-140.5	295.3	283.6	11.72	25.196										
3,100.0	3,089.5	3,082.2	3,074.1	6.7	6.5	-134.62	161.4	-145.3	307.0	294.9	12.13	25.304										
3,200.0	3,189.0	3,181.5	3,173.1	7.0	6.7	-134.72	167.6	-150.2	318.7	306.1	12.54	25.405										
3,300.0	3,288.6	3,280.8	3,272.1	7.2	6.9	-134.82	173.8	-155.1	330.4	317.4	12.96	25.500										
3,400.0	3,388.1	3,380.1	3,371.1	7.4	7.1	-134.91	180.1	-159.9	342.1	328.7	13.37	25.589										
3,500.0	3,487.7	3,479.4	3,470.1	7.7	7.4	-134.99	186.3	-164.8	353.8	340.0	13.78	25.672										
3,600.0	3,587.2	3,578.7	3,569.1	7.9	7.6	-135.07	192.6	-169.7	365.5	351.3	14.19	25.751										
3,700.0	3,686.7	3,678.0	3,668.1	8.2	7.8	-135.14	198.8	-174.5	377.2	362.6	14.60	25.825										
3,800.0	3,786.3	3,777.4	3,767.1	8.4	8.0	-135.21	205.0	-179.4	388.9	373.8	15.02	25.895										
3,900.0	3,885.8	3,876.7	3,866.1	8.6	8.2	-135.28	211.3	-184.3	400.6	385.1	15.43	25.961										
4,000.0	3,985.4	3,976.0	3,965.1	8.9	8.5	-135.34	217.5	-189.1	412.3	396.4	15.84	26.024										
4,100.0	4,084.9	4,075.3	4,064.1	9.1	8.7	-135.40	223.8	-194.0	423.9	407.7	16.25	26.084										
4,200.0	4,184.5	4,174.6	4,163.1	9.4	8.9	-135.45	230.0	-198.9	435.6	419.0	16.67	26.140										
4,300.0	4,284.0	4,273.9	4,262.1	9.6	9.1	-135.50	236.2	-203.7	447.3	430.3	17.08	26.194										
4,400.0	4,383.6	4,373.2	4,361.1	9.8	9.4	-135.55	242.5	-208.6	459.0	441.6	17.49	26.245										
4,500.0	4,483.1	4,472.5	4,460.1	10.1	9.6	-135.60	248.7	-213.5	470.7	452.8	17.90	26.294										
4,600.0	4,582.7	4,571.9	4,559.1	10.3	9.8	-135.64	254.9	-218.3	482.4	464.1	18.32	26.341										
4,700.0	4,682.2	4,671.2	4,658.1	10.6	10.0	-135.69	261.2	-223.2	494.1	475.4	18.73	26.385										

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 1D-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 1D-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	-89.94	0.0	-8.4	8.4						
100.0	100.0	100.0	100.0	0.2	0.2	-89.94	0.0	-8.4	8.4	8.1	0.30	27.605			
200.0	200.0	200.0	200.0	0.3	0.3	-89.94	0.0	-8.4	8.4	7.7	0.65	12.843			
300.0	300.0	300.0	300.0	0.5	0.5	-89.94	0.0	-8.4	8.4	7.4	1.00	8.368			
400.0	400.0	400.0	400.0	0.7	0.7	-89.94	0.0	-8.4	8.4	7.0	1.35	6.206			
500.0	500.0	500.0	500.0	0.8	0.8	-89.94	0.0	-8.4	8.4	6.7	1.70	4.931			
600.0	600.0	600.0	600.0	1.0	1.0	-89.94	0.0	-8.4	8.4	6.3	2.05	4.091	CC, ES		
700.0	700.0	700.0	700.0	1.2	1.2	-142.90	0.0	-8.4	9.7	7.3	2.40	4.049	SF		
800.0	799.8	799.8	799.8	1.4	1.4	-155.67	0.0	-8.4	14.2	11.5	2.75	5.186			
900.0	899.5	899.5	899.5	1.6	1.5	-164.75	0.0	-8.4	22.3	19.3	3.09	7.231			
1,000.0	999.0	999.0	999.0	1.8	1.7	-169.29	0.0	-8.4	31.6	28.2	3.44	9.201			
1,100.0	1,098.6	1,098.6	1,098.6	2.0	1.9	-171.76	0.0	-8.4	41.0	37.2	3.79	10.837			
1,200.0	1,198.1	1,198.9	1,198.9	2.2	2.1	-171.58	1.7	-8.7	49.7	45.5	4.14	12.008			
1,300.0	1,297.6	1,299.4	1,299.2	2.5	2.3	-168.28	6.9	-9.5	56.9	52.4	4.50	12.639			
1,400.0	1,397.2	1,399.1	1,398.7	2.7	2.4	-164.25	13.7	-10.6	63.6	58.7	4.87	13.054			
1,500.0	1,496.7	1,498.8	1,498.1	2.9	2.6	-161.01	20.6	-11.7	70.5	65.3	5.25	13.437			
1,600.0	1,596.3	1,598.4	1,597.6	3.2	2.8	-158.35	27.4	-12.8	77.7	72.1	5.64	13.785			
1,700.0	1,695.8	1,698.1	1,697.0	3.4	3.0	-156.15	34.3	-13.9	85.0	78.9	6.03	14.098			
1,800.0	1,795.4	1,797.8	1,796.4	3.6	3.2	-154.29	41.2	-15.0	92.4	85.9	6.42	14.379			
1,900.0	1,894.9	1,897.5	1,895.9	3.9	3.4	-152.71	48.0	-16.1	99.8	93.0	6.82	14.632			
2,000.0	1,994.5	1,997.2	1,995.3	4.1	3.6	-151.36	54.9	-17.2	107.4	100.2	7.23	14.860			
2,100.0	2,094.0	2,096.9	2,094.8	4.3	3.8	-150.18	61.8	-18.3	115.0	107.3	7.63	15.066			
2,200.0	2,193.6	2,196.6	2,194.2	4.6	4.0	-149.14	68.6	-19.4	122.6	114.6	8.04	15.253			
2,300.0	2,293.1	2,296.2	2,293.7	4.8	4.2	-148.23	75.5	-20.5	130.3	121.8	8.45	15.423			
2,400.0	2,392.7	2,395.9	2,393.1	5.0	4.4	-147.42	82.4	-21.6	138.0	129.1	8.86	15.577			
2,500.0	2,492.2	2,495.6	2,492.5	5.3	4.6	-146.70	89.2	-22.7	145.7	136.4	9.27	15.719			
2,600.0	2,591.7	2,595.3	2,592.0	5.5	4.8	-146.05	96.1	-23.8	153.4	143.7	9.68	15.849			
2,700.0	2,691.3	2,695.0	2,691.4	5.8	5.0	-145.46	102.9	-24.9	161.2	151.1	10.09	15.969			
2,800.0	2,790.8	2,794.7	2,790.9	6.0	5.3	-144.92	109.8	-26.0	169.0	158.5	10.51	16.080			
2,900.0	2,890.4	2,894.4	2,890.3	6.2	5.5	-144.43	116.7	-27.1	176.8	165.8	10.92	16.182			
3,000.0	2,989.9	2,994.0	2,989.8	6.5	5.7	-143.99	123.5	-28.2	184.6	173.2	11.34	16.277			
3,100.0	3,089.5	3,093.7	3,089.2	6.7	5.9	-143.58	130.4	-29.3	192.4	180.6	11.75	16.366			
3,200.0	3,189.0	3,193.4	3,188.6	7.0	6.1	-143.20	137.3	-30.4	200.2	188.0	12.17	16.448			
3,300.0	3,288.6	3,293.1	3,288.1	7.2	6.3	-142.85	144.1	-31.5	208.0	195.4	12.59	16.525			
3,400.0	3,388.1	3,392.8	3,387.5	7.4	6.5	-142.53	151.0	-32.6	215.8	202.8	13.00	16.598			
3,500.0	3,487.7	3,492.5	3,487.0	7.7	6.7	-142.22	157.9	-33.7	223.7	210.3	13.42	16.666			
3,600.0	3,587.2	3,592.2	3,586.4	7.9	6.9	-141.94	164.7	-34.8	231.5	217.7	13.84	16.729			
3,700.0	3,686.7	3,691.8	3,685.9	8.2	7.1	-141.68	171.6	-35.9	239.4	225.1	14.26	16.789			
3,800.0	3,786.3	3,791.5	3,785.3	8.4	7.3	-141.43	178.4	-37.0	247.2	232.6	14.68	16.846			
3,900.0	3,885.8	3,891.2	3,884.7	8.6	7.5	-141.20	185.3	-38.1	255.1	240.0	15.10	16.900			
4,000.0	3,985.4	3,990.9	3,984.2	8.9	7.8	-140.99	192.2	-39.2	263.0	247.5	15.51	16.951			
4,100.0	4,084.9	4,090.6	4,083.6	9.1	8.0	-140.78	199.0	-40.3	270.8	254.9	15.93	16.999			
4,200.0	4,184.5	4,190.3	4,183.1	9.4	8.2	-140.59	205.9	-41.4	278.7	262.4	16.35	17.044			
4,300.0	4,284.0	4,290.0	4,282.5	9.6	8.4	-140.41	212.8	-42.5	286.6	269.8	16.77	17.088			
4,400.0	4,383.6	4,389.6	4,382.0	9.8	8.6	-140.23	219.6	-43.6	294.5	277.3	17.19	17.129			
4,500.0	4,483.1	4,489.3	4,481.4	10.1	8.8	-140.07	226.5	-44.7	302.3	284.7	17.61	17.168			
4,600.0	4,582.7	4,589.0	4,580.8	10.3	9.0	-139.91	233.4	-45.8	310.2	292.2	18.03	17.206			
4,700.0	4,682.2	4,688.7	4,680.3	10.6	9.2	-139.77	240.2	-46.9	318.1	299.7	18.45	17.241			
4,800.0	4,781.7	4,788.4	4,779.7	10.8	9.4	-139.63	247.1	-48.0	326.0	307.1	18.87	17.276			
4,900.0	4,881.3	4,888.1	4,879.2	11.0	9.6	-139.49	253.9	-49.1	333.9	314.6	19.29	17.308			
5,000.0	4,980.8	4,987.7	4,978.6	11.3	9.9	-139.37	260.8	-50.2	341.8	322.1	19.71	17.340			
5,100.0	5,080.4	5,087.4	5,078.1	11.5	10.1	-139.24	267.7	-51.3	349.7	329.5	20.13	17.370			

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 1D-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 1D-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	5,179.9	5,187.1	5,177.5	11.8	10.3	-139.13	274.5	-52.4	357.6	337.0	20.55	17.399			
5,300.0	5,279.5	5,286.8	5,276.9	12.0	10.5	-139.02	281.4	-53.5	365.5	344.5	20.97	17.426			
5,400.0	5,379.0	5,386.5	5,376.4	12.2	10.7	-138.91	288.3	-54.6	373.4	352.0	21.39	17.453			
5,500.0	5,478.6	5,486.2	5,475.8	12.5	10.9	-138.81	295.1	-55.7	381.3	359.4	21.81	17.478			
5,600.0	5,578.1	5,585.9	5,575.3	12.7	11.1	-138.71	302.0	-56.8	389.2	366.9	22.23	17.503			
5,700.0	5,677.7	5,685.5	5,674.7	13.0	11.3	-138.61	308.8	-57.9	397.1	374.4	22.65	17.526			
5,800.0	5,777.2	5,785.2	5,774.2	13.2	11.5	-138.52	315.7	-59.0	405.0	381.9	23.08	17.549			
5,900.0	5,876.8	5,884.9	5,873.6	13.4	11.8	-138.44	322.6	-60.1	412.9	389.4	23.50	17.571			
6,000.0	5,976.3	5,984.6	5,973.0	13.7	12.0	-138.35	329.4	-61.2	420.8	396.8	23.92	17.592			
6,100.0	6,075.8	6,084.3	6,072.5	13.9	12.2	-138.27	336.3	-62.3	428.7	404.3	24.34	17.613			
6,200.0	6,175.4	6,184.0	6,171.9	14.2	12.4	-138.19	343.2	-63.4	436.6	411.8	24.76	17.633			
6,300.0	6,274.9	6,283.7	6,271.4	14.4	12.6	-138.12	350.0	-64.5	444.5	419.3	25.18	17.652			
6,400.0	6,374.5	6,383.3	6,370.8	14.7	12.8	-138.05	356.9	-65.6	452.4	426.8	25.60	17.670			
6,500.0	6,474.0	6,483.0	6,470.3	14.9	13.0	-137.98	363.8	-66.7	460.3	434.3	26.02	17.688			
6,600.0	6,573.6	6,582.7	6,569.7	15.1	13.2	-137.91	370.6	-67.8	468.2	441.7	26.44	17.706			
6,700.0	6,673.1	6,682.4	6,669.1	15.4	13.4	-137.84	377.5	-68.9	476.1	449.2	26.86	17.722			
6,800.0	6,772.8	6,782.0	6,768.5	15.6	13.7	-137.77	384.3	-70.0	483.9	456.7	27.24	17.766			
6,900.0	6,871.6	6,879.7	6,866.0	15.6	13.9	-137.70	391.1	-71.1	491.5	464.0	27.53	17.852			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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	90.04	0.0	11.2	11.2						
100.0	100.0	100.0	100.0	0.2	0.2	90.04	0.0	11.2	11.2	10.9	0.30	36.806			
200.0	200.0	200.0	200.0	0.3	0.3	90.04	0.0	11.2	11.2	10.5	0.65	17.124			
300.0	300.0	300.0	300.0	0.5	0.5	90.04	0.0	11.2	11.2	10.2	1.00	11.157			
400.0	400.0	400.0	400.0	0.7	0.7	90.04	0.0	11.2	11.2	9.8	1.35	8.274 CC, ES			
500.0	500.0	499.6	499.6	0.8	0.9	85.96	0.9	12.7	12.7	11.0	1.70	7.469			
600.0	600.0	599.0	598.9	1.0	1.0	78.13	3.6	17.1	17.5	15.4	2.05	8.529			
700.0	700.0	698.1	697.5	1.2	1.2	27.69	8.1	24.4	24.3	21.9	2.40	10.118			
800.0	799.8	797.5	796.3	1.4	1.5	26.68	14.0	34.2	30.8	28.0	2.75	11.182			
900.0	899.5	897.4	895.6	1.6	1.7	28.38	20.1	44.2	34.5	31.4	3.11	11.097			
1,000.0	999.0	997.4	994.8	1.8	2.0	30.48	26.2	54.2	37.5	34.0	3.48	10.769			
1,100.0	1,098.6	1,097.3	1,094.1	2.0	2.2	32.26	32.4	64.3	40.6	36.7	3.86	10.495			
1,200.0	1,198.1	1,197.3	1,193.3	2.2	2.5	33.80	38.5	74.3	43.6	39.4	4.25	10.262			
1,300.0	1,297.6	1,297.2	1,292.6	2.5	2.8	35.13	44.6	84.3	46.7	42.1	4.64	10.061			
1,400.0	1,397.2	1,397.2	1,391.8	2.7	3.0	36.29	50.7	94.4	49.8	44.8	5.04	9.885			
1,500.0	1,496.7	1,497.1	1,491.1	2.9	3.3	37.32	56.8	104.4	53.0	47.5	5.44	9.730			
1,600.0	1,596.3	1,597.1	1,590.3	3.2	3.5	38.24	63.0	114.4	56.1	50.3	5.85	9.593			
1,700.0	1,695.8	1,697.0	1,689.6	3.4	3.8	39.05	69.1	124.4	59.3	53.0	6.26	9.470			
1,800.0	1,795.4	1,797.0	1,788.8	3.6	4.1	39.78	75.2	134.5	62.4	55.8	6.67	9.360			
1,900.0	1,894.9	1,896.9	1,888.1	3.9	4.3	40.45	81.3	144.5	65.6	58.5	7.09	9.261			
2,000.0	1,994.5	1,996.9	1,987.3	4.1	4.6	41.05	87.4	154.5	68.8	61.3	7.50	9.171			
2,100.0	2,094.0	2,096.8	2,086.6	4.3	4.9	41.60	93.6	164.6	72.0	64.1	7.92	9.089			
2,200.0	2,193.6	2,196.8	2,185.8	4.6	5.1	42.10	99.7	174.6	75.2	66.9	8.34	9.014			
2,300.0	2,293.1	2,296.7	2,285.1	4.8	5.4	42.56	105.8	184.6	78.4	69.7	8.77	8.945			
2,400.0	2,392.7	2,396.6	2,384.4	5.0	5.7	42.98	111.9	194.7	81.6	72.4	9.19	8.882			
2,500.0	2,492.2	2,496.6	2,483.6	5.3	5.9	43.37	118.0	204.7	84.9	75.2	9.62	8.824			
2,600.0	2,591.7	2,596.5	2,582.9	5.5	6.2	43.74	124.2	214.7	88.1	78.0	10.04	8.770			
2,700.0	2,691.3	2,696.5	2,682.1	5.8	6.5	44.07	130.3	224.8	91.3	80.8	10.47	8.720			
2,800.0	2,790.8	2,796.4	2,781.4	6.0	6.8	44.39	136.4	234.8	94.5	83.6	10.90	8.674			
2,900.0	2,890.4	2,896.4	2,880.6	6.2	7.0	44.68	142.5	244.8	97.8	86.4	11.33	8.631			
3,000.0	2,989.9	2,996.3	2,979.9	6.5	7.3	44.96	148.6	254.9	101.0	89.2	11.76	8.590			
3,100.0	3,089.5	3,096.3	3,079.1	6.7	7.6	45.21	154.7	264.9	104.2	92.0	12.19	8.552			
3,200.0	3,189.0	3,196.2	3,178.4	7.0	7.8	45.46	160.9	274.9	107.5	94.8	12.62	8.517			
3,300.0	3,288.6	3,296.2	3,277.6	7.2	8.1	45.68	167.0	285.0	110.7	97.6	13.05	8.483			
3,400.0	3,388.1	3,396.1	3,376.9	7.4	8.4	45.90	173.1	295.0	113.9	100.5	13.48	8.452			
3,500.0	3,487.7	3,496.1	3,476.1	7.7	8.6	46.10	179.2	305.0	117.2	103.3	13.91	8.422			
3,600.0	3,587.2	3,596.0	3,575.4	7.9	8.9	46.29	185.3	315.1	120.4	106.1	14.35	8.394			
3,700.0	3,686.7	3,695.9	3,674.6	8.2	9.2	46.48	191.5	325.1	123.7	108.9	14.78	8.368			
3,800.0	3,786.3	3,795.9	3,773.9	8.4	9.4	46.65	197.6	335.1	126.9	111.7	15.21	8.343			
3,900.0	3,885.8	3,895.8	3,873.2	8.6	9.7	46.81	203.7	345.2	130.2	114.5	15.65	8.319			
4,000.0	3,985.4	3,995.8	3,972.4	8.9	10.0	46.97	209.8	355.2	133.4	117.3	16.08	8.296			
4,100.0	4,084.9	4,095.7	4,071.7	9.1	10.3	47.12	215.9	365.2	136.6	120.1	16.51	8.275			
4,200.0	4,184.5	4,195.7	4,170.9	9.4	10.5	47.26	222.1	375.3	139.9	122.9	16.95	8.255			
4,300.0	4,284.0	4,295.6	4,270.2	9.6	10.8	47.40	228.2	385.3	143.1	125.8	17.38	8.235			
4,400.0	4,383.6	4,395.6	4,369.4	9.8	11.1	47.53	234.3	395.3	146.4	128.6	17.82	8.216			
4,500.0	4,483.1	4,495.5	4,468.7	10.1	11.3	47.65	240.4	405.4	149.6	131.4	18.25	8.199			
4,600.0	4,582.7	4,595.5	4,567.9	10.3	11.6	47.77	246.5	415.4	152.9	134.2	18.69	8.182			
4,700.0	4,682.2	4,695.4	4,667.2	10.6	11.9	47.88	252.7	425.4	156.2	137.0	19.12	8.165			
4,800.0	4,781.7	4,795.4	4,766.4	10.8	12.1	47.99	258.8	435.5	159.4	139.8	19.56	8.150			
4,900.0	4,881.3	4,895.3	4,865.7	11.0	12.4	48.10	264.9	445.5	162.7	142.7	19.99	8.135			
5,000.0	4,980.8	4,995.3	4,964.9	11.3	12.7	48.20	271.0	455.5	165.9	145.5	20.43	8.121			
5,100.0	5,080.4	5,095.2	5,064.2	11.5	12.9	48.29	277.1	465.6	169.2	148.3	20.87	8.107			

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 1D-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 1D-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	5,179.9	5,195.1	5,163.4	11.8	13.2	48.39	283.3	475.6	172.4	151.1	21.30	8.094			
5,300.0	5,279.5	5,295.1	5,262.7	12.0	13.5	48.48	289.4	485.6	175.7	153.9	21.74	8.081			
5,400.0	5,379.0	5,395.0	5,362.0	12.2	13.8	48.56	295.5	495.7	178.9	156.8	22.18	8.069			
5,500.0	5,478.6	5,495.0	5,461.2	12.5	14.0	48.65	301.6	505.7	182.2	159.6	22.61	8.057			
5,600.0	5,578.1	5,594.9	5,560.5	12.7	14.3	48.73	307.7	515.7	185.4	162.4	23.05	8.045			
5,700.0	5,677.7	5,694.9	5,659.7	13.0	14.6	48.80	313.8	525.8	188.7	165.2	23.49	8.035			
5,800.0	5,777.2	5,794.8	5,759.0	13.2	14.8	48.88	320.0	535.8	192.0	168.0	23.92	8.024			
5,900.0	5,876.8	5,894.8	5,858.2	13.4	15.1	48.95	326.1	545.8	195.2	170.9	24.36	8.014			
6,000.0	5,976.3	5,994.7	5,957.5	13.7	15.4	49.02	332.2	555.9	198.5	173.7	24.80	8.004			
6,100.0	6,075.8	6,094.7	6,056.7	13.9	15.6	49.09	338.3	565.9	201.7	176.5	25.23	7.994			
6,200.0	6,175.4	6,194.6	6,156.0	14.2	15.9	49.15	344.4	575.9	205.0	179.3	25.67	7.985			
6,300.0	6,274.9	6,294.6	6,255.2	14.4	16.2	49.22	350.6	586.0	208.3	182.1	26.11	7.976			
6,400.0	6,374.5	6,394.5	6,354.5	14.7	16.5	49.28	356.7	596.0	211.5	185.0	26.55	7.967			
6,500.0	6,474.0	6,494.5	6,453.7	14.9	16.7	49.34	362.8	606.0	214.8	187.8	26.98	7.959			
6,600.0	6,573.6	6,594.4	6,553.0	15.1	17.0	49.40	368.9	616.1	218.0	190.6	27.42	7.951			
6,700.0	6,673.1	6,694.3	6,652.2	15.4	17.3	49.45	375.0	626.1	221.3	193.4	27.86	7.943			
6,800.0	6,772.8	6,794.2	6,751.4	15.6	17.5	-22.67	381.2	636.1	224.3	196.1	28.15	7.968			
6,900.0	6,871.6	6,892.3	6,848.9	15.6	17.8	-71.35	387.2	646.0	226.7	199.1	27.66	8.196			
7,000.0	6,966.9	6,985.8	6,941.7	15.6	18.0	-86.74	392.9	655.3	232.4	205.8	26.65	8.720			
7,100.0	7,055.7	7,078.7	7,034.0	15.5	18.3	-98.93	396.6	664.7	247.3	221.8	25.56	9.677			
7,200.0	7,135.2	7,185.2	7,139.1	15.3	18.4	-109.42	384.5	675.3	271.1	246.5	24.60	11.020			
7,300.0	7,203.1	7,306.1	7,253.4	15.2	18.4	-118.08	347.4	686.9	300.2	276.4	23.75	12.638			
7,400.0	7,257.3	7,446.4	7,372.8	15.2	18.3	-125.12	275.4	698.9	330.4	307.5	22.94	14.402			
7,500.0	7,296.2	7,610.5	7,485.4	15.3	18.3	-130.49	157.4	710.3	357.0	334.7	22.28	16.022			
7,600.0	7,318.5	7,798.5	7,567.6	15.6	18.4	-133.86	-10.5	718.6	374.9	352.9	22.06	16.999			
7,700.0	7,324.0	7,983.7	7,592.0	16.0	19.1	-134.82	-193.3	721.1	380.2	357.6	22.64	16.793			
7,800.0	7,324.0	8,083.7	7,592.0	16.7	19.6	-134.82	-293.3	721.1	380.2	356.4	23.76	15.999			
7,900.0	7,324.0	8,183.7	7,592.0	17.5	20.3	-134.82	-393.3	721.1	380.2	355.1	25.08	15.159			
8,000.0	7,324.0	8,283.7	7,592.0	18.4	21.1	-134.82	-493.3	721.1	380.2	353.6	26.57	14.310			
8,100.0	7,324.0	8,383.7	7,592.0	19.4	22.0	-134.82	-593.3	721.1	380.2	352.0	28.20	13.481			
8,200.0	7,324.0	8,483.7	7,592.0	20.6	23.0	-134.82	-693.3	721.1	380.2	350.2	29.96	12.692			
8,300.0	7,324.0	8,583.7	7,592.0	21.8	24.1	-134.82	-793.3	721.1	380.2	348.4	31.81	11.953			
8,400.0	7,324.0	8,683.7	7,592.0	23.1	25.3	-134.82	-893.3	721.1	380.2	346.5	33.75	11.266			
8,500.0	7,324.0	8,783.7	7,592.0	24.4	26.5	-134.82	-993.3	721.1	380.2	344.4	35.75	10.634			
8,600.0	7,324.0	8,883.7	7,592.0	25.8	27.8	-134.82	-1,093.3	721.1	380.2	342.4	37.82	10.052			
8,700.0	7,324.0	8,983.7	7,592.0	27.3	29.2	-134.82	-1,193.3	721.1	380.2	340.3	39.94	9.519			
8,800.0	7,324.0	9,083.7	7,592.0	28.7	30.5	-134.82	-1,293.3	721.1	380.2	338.1	42.10	9.031			
8,900.0	7,324.0	9,183.7	7,592.0	30.2	32.0	-134.82	-1,393.3	721.1	380.2	335.9	44.30	8.583			
9,000.0	7,324.0	9,283.7	7,592.0	31.8	33.4	-134.82	-1,493.3	721.1	380.2	333.7	46.52	8.172			
9,100.0	7,324.0	9,383.7	7,592.0	33.3	34.9	-134.82	-1,593.3	721.1	380.2	331.4	48.78	7.795			
9,200.0	7,324.0	9,483.7	7,592.0	34.9	36.4	-134.82	-1,693.3	721.1	380.2	329.1	51.05	7.447			
9,300.0	7,324.0	9,583.7	7,592.0	36.5	37.9	-134.82	-1,793.3	721.1	380.2	326.9	53.35	7.126			
9,400.0	7,324.0	9,683.7	7,592.0	38.1	39.5	-134.82	-1,893.3	721.1	380.2	324.5	55.67	6.830			
9,500.0	7,324.0	9,783.7	7,592.0	39.7	41.0	-134.82	-1,993.3	721.1	380.2	322.2	58.00	6.556			
9,600.0	7,324.0	9,883.7	7,592.0	41.3	42.6	-134.82	-2,093.3	721.1	380.2	319.9	60.34	6.301			
9,700.0	7,324.0	9,983.7	7,592.0	42.9	44.2	-134.82	-2,193.3	721.1	380.2	317.5	62.70	6.064			
9,800.0	7,324.0	10,083.7	7,592.0	44.6	45.8	-134.82	-2,293.3	721.1	380.2	315.1	65.07	5.843			
9,900.0	7,324.0	10,183.7	7,592.0	46.2	47.4	-134.82	-2,393.3	721.1	380.2	312.8	67.44	5.637			
10,000.0	7,324.0	10,283.7	7,592.0	47.9	49.0	-134.82	-2,493.3	721.1	380.2	310.4	69.83	5.445			
10,100.0	7,324.0	10,383.7	7,592.0	49.6	50.7	-134.82	-2,593.3	721.1	380.2	308.0	72.23	5.264			
10,200.0	7,324.0	10,483.7	7,592.0	51.2	52.3	-134.82	-2,693.3	721.1	380.2	305.6	74.63	5.095			
10,300.0	7,324.0	10,583.7	7,592.0	52.9	54.0	-134.82	-2,793.3	721.1	380.2	303.2	77.04	4.935			

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 1D-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 1D-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		
10,400.0	7,324.0	10,683.7	7,592.0	54.6	55.6	-134.82	-2,893.3	721.1	380.2	300.8	79.45	4.785			
10,500.0	7,324.0	10,783.7	7,592.0	56.3	57.3	-134.82	-2,993.3	721.1	380.2	298.3	81.87	4.644			
10,600.0	7,324.0	10,883.7	7,592.0	58.0	58.9	-134.82	-3,093.3	721.1	380.2	295.9	84.29	4.510			
10,700.0	7,324.0	10,983.7	7,592.0	59.7	60.6	-134.82	-3,193.3	721.1	380.2	293.5	86.72	4.384			
10,800.0	7,324.0	11,083.7	7,592.0	61.4	62.3	-134.82	-3,293.3	721.1	380.2	291.0	89.15	4.265			
10,900.0	7,324.0	11,183.7	7,592.0	63.1	64.0	-134.82	-3,393.3	721.1	380.2	288.6	91.59	4.151			
11,000.0	7,324.0	11,283.7	7,592.0	64.8	65.6	-134.82	-3,493.3	721.1	380.2	286.2	94.03	4.043			
11,100.0	7,324.0	11,383.7	7,592.0	66.5	67.3	-134.82	-3,593.3	721.1	380.2	283.7	96.48	3.941			
11,200.0	7,324.0	11,483.7	7,592.0	68.2	69.0	-134.82	-3,693.3	721.1	380.2	281.3	98.92	3.843			
11,300.0	7,324.0	11,583.7	7,592.0	69.9	70.7	-134.82	-3,793.3	721.1	380.2	278.8	101.37	3.751			
11,400.0	7,324.0	11,683.7	7,592.0	71.6	72.4	-134.82	-3,893.3	721.1	380.2	276.4	103.82	3.662			
11,500.0	7,324.0	11,783.7	7,592.0	73.3	74.1	-134.82	-3,993.3	721.1	380.2	273.9	106.28	3.577			
11,600.0	7,324.0	11,883.7	7,592.0	75.1	75.8	-134.82	-4,093.3	721.1	380.2	271.5	108.73	3.497			
11,700.0	7,324.0	11,983.7	7,592.0	76.8	77.5	-134.82	-4,193.3	721.1	380.2	269.0	111.19	3.419			
11,800.0	7,324.0	12,083.7	7,592.0	78.5	79.2	-134.82	-4,293.3	721.1	380.2	266.6	113.65	3.345			
11,861.0	7,324.0	12,144.7	7,592.0	79.5	80.2	-134.82	-4,354.3	721.1	380.2	265.0	115.16	3.302			
11,900.0	7,324.0	12,183.6	7,592.0	80.2	80.9	-134.82	-4,393.2	721.1	380.2	264.1	116.11	3.274			
11,903.6	7,324.0	12,183.6	7,592.0	80.3	80.9	-134.82	-4,393.2	721.1	380.2	264.1	116.16	3.273 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 lone 1D-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 1D-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: 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		
0.0	0.0	0.0	0.0	0.0	0.0	89.93	0.0	19.6	19.6						
100.0	100.0	100.0	100.0	0.2	0.2	89.93	0.0	19.6	19.6	19.3	0.30	64.411			
200.0	200.0	200.0	200.0	0.3	0.3	89.93	0.0	19.6	19.6	18.9	0.65	29.967	CC, ES		
300.0	300.0	299.3	299.3	0.5	0.5	88.24	0.6	21.2	21.2	20.2	1.00	21.158			
400.0	400.0	398.4	398.3	0.7	0.7	84.47	2.5	26.0	26.1	24.8	1.35	19.304	SF		
500.0	500.0	497.0	496.5	0.8	0.9	80.63	5.6	33.9	34.5	32.8	1.72	20.097			
600.0	600.0	594.9	593.7	1.0	1.2	77.60	9.9	44.9	46.4	44.3	2.10	22.072			
700.0	700.0	692.2	689.8	1.2	1.5	30.34	15.3	58.9	60.2	57.8	2.39	25.177			
800.0	799.8	790.9	787.0	1.4	1.8	30.50	21.6	75.1	73.2	70.5	2.74	26.696			
900.0	899.5	890.4	884.9	1.6	2.2	31.81	28.0	91.6	83.5	80.4	3.11	26.869			
1,000.0	999.0	989.9	982.8	1.8	2.5	33.20	34.4	108.0	93.0	89.5	3.48	26.714			
1,100.0	1,098.6	1,089.4	1,080.7	2.0	2.8	34.34	40.8	124.4	102.6	98.7	3.86	26.556			
1,200.0	1,198.1	1,189.0	1,178.7	2.2	3.2	35.28	47.2	140.9	112.2	107.9	4.25	26.400			
1,300.0	1,297.6	1,288.5	1,276.6	2.5	3.5	36.07	53.6	157.3	121.8	117.1	4.64	26.249			
1,400.0	1,397.2	1,388.0	1,374.6	2.7	3.9	36.75	59.9	173.8	131.4	126.4	5.03	26.107			
1,500.0	1,496.7	1,487.5	1,472.5	2.9	4.3	37.33	66.3	190.2	141.1	135.6	5.43	25.972			
1,600.0	1,596.3	1,587.1	1,570.5	3.2	4.6	37.84	72.7	206.6	150.7	144.9	5.83	25.846			
1,700.0	1,695.8	1,686.6	1,668.4	3.4	5.0	38.29	79.1	223.1	160.4	154.2	6.24	25.729			
1,800.0	1,795.4	1,786.1	1,766.4	3.6	5.3	38.69	85.5	239.5	170.1	163.5	6.64	25.620			
1,900.0	1,894.9	1,885.6	1,864.3	3.9	5.7	39.04	91.9	255.9	179.8	172.8	7.05	25.519			
2,000.0	1,994.5	1,985.2	1,962.3	4.1	6.0	39.36	98.3	272.4	189.5	182.0	7.45	25.424			
2,100.0	2,094.0	2,084.7	2,060.2	4.3	6.4	39.65	104.6	288.8	199.2	191.3	7.86	25.336			
2,200.0	2,193.6	2,184.2	2,158.2	4.6	6.7	39.91	111.0	305.3	208.9	200.6	8.27	25.254			
2,300.0	2,293.1	2,283.7	2,256.1	4.8	7.1	40.15	117.4	321.7	218.6	209.9	8.68	25.177			
2,400.0	2,392.7	2,383.2	2,354.1	5.0	7.4	40.36	123.8	338.1	228.3	219.2	9.10	25.106			
2,500.0	2,492.2	2,482.8	2,452.0	5.3	7.8	40.56	130.2	354.6	238.1	228.6	9.51	25.039			
2,600.0	2,591.7	2,582.3	2,550.0	5.5	8.2	40.75	136.6	371.0	247.8	237.9	9.92	24.976			
2,700.0	2,691.3	2,681.8	2,647.9	5.8	8.5	40.92	143.0	387.5	257.5	247.2	10.33	24.917			
2,800.0	2,790.8	2,781.3	2,745.9	6.0	8.9	41.07	149.4	403.9	267.2	256.5	10.75	24.861			
2,900.0	2,890.4	2,880.9	2,843.8	6.2	9.2	41.22	155.7	420.3	277.0	265.8	11.16	24.809			
3,000.0	2,989.9	2,980.4	2,941.8	6.5	9.6	41.36	162.1	436.8	286.7	275.1	11.58	24.760			
3,100.0	3,089.5	3,079.9	3,039.7	6.7	9.9	41.49	168.5	453.2	296.4	284.4	11.99	24.713			
3,200.0	3,189.0	3,179.4	3,137.7	7.0	10.3	41.60	174.9	469.6	306.1	293.7	12.41	24.669			
3,300.0	3,288.6	3,279.0	3,235.6	7.2	10.7	41.72	181.3	486.1	315.9	303.1	12.83	24.628			
3,400.0	3,388.1	3,378.5	3,333.6	7.4	11.0	41.82	187.7	502.5	325.6	312.4	13.24	24.588			
3,500.0	3,487.7	3,478.0	3,431.5	7.7	11.4	41.92	194.1	519.0	335.4	321.7	13.66	24.551			
3,600.0	3,587.2	3,577.5	3,529.5	7.9	11.7	42.01	200.5	535.4	345.1	331.0	14.08	24.515			
3,700.0	3,686.7	3,677.0	3,627.4	8.2	12.1	42.10	206.8	551.8	354.8	340.3	14.49	24.481			
3,800.0	3,786.3	3,776.6	3,725.4	8.4	12.4	42.19	213.2	568.3	364.6	349.7	14.91	24.449			
3,900.0	3,885.8	3,876.1	3,823.3	8.6	12.8	42.27	219.6	584.7	374.3	359.0	15.33	24.418			
4,000.0	3,985.4	3,975.6	3,921.2	8.9	13.2	42.34	226.0	601.2	384.0	368.3	15.75	24.389			
4,100.0	4,084.9	4,075.1	4,019.2	9.1	13.5	42.41	232.4	617.6	393.8	377.6	16.16	24.361			
4,200.0	4,184.5	4,174.7	4,117.1	9.4	13.9	42.48	238.8	634.0	403.5	386.9	16.58	24.334			
4,300.0	4,284.0	4,274.2	4,215.1	9.6	14.2	42.55	245.2	650.5	413.3	396.3	17.00	24.308			
4,400.0	4,383.6	4,373.7	4,313.0	9.8	14.6	42.61	251.6	666.9	423.0	405.6	17.42	24.284			
4,500.0	4,483.1	4,473.2	4,411.0	10.1	14.9	42.67	257.9	683.4	432.8	414.9	17.84	24.260			
4,600.0	4,582.7	4,572.8	4,508.9	10.3	15.3	42.72	264.3	699.8	442.5	424.2	18.26	24.237			
4,700.0	4,682.2	4,672.3	4,606.9	10.6	15.6	42.78	270.7	716.2	452.2	433.6	18.68	24.216			
4,800.0	4,781.7	4,771.8	4,704.8	10.8	16.0	42.83	277.1	732.7	462.0	442.9	19.09	24.195			
4,900.0	4,881.3	4,871.3	4,802.8	11.0	16.4	42.88	283.5	749.1	471.7	452.2	19.51	24.175			
5,000.0	4,980.8	4,970.9	4,900.7	11.3	16.7	42.93	289.9	765.5	481.5	461.5	19.93	24.155			
5,100.0	5,080.4	5,070.4	4,998.7	11.5	17.1	42.97	296.3	782.0	491.2	470.9	20.35	24.137			

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 1D-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 1D-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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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)					
7,200.0	7,135.2	7,224.7	7,161.9	15.3	16.7	-49.44	-104.1	783.0	496.3	467.4	28.90	17.169			
7,300.0	7,203.1	7,292.5	7,229.6	15.2	16.8	-62.23	-102.2	781.2	440.5	411.9	28.57	15.417			
7,400.0	7,257.3	7,345.6	7,282.7	15.2	16.9	-75.70	-100.6	779.7	386.8	358.2	28.61	13.521			
7,500.0	7,296.2	7,382.5	7,319.5	15.3	16.9	-86.44	-99.4	778.5	345.1	316.4	28.74	12.007			
7,600.0	7,318.5	7,401.8	7,338.9	15.6	17.0	-91.77	-98.8	777.8	327.1	298.0	29.03	11.268			
7,609.4	7,319.7	7,402.8	7,339.8	15.6	17.0	-91.95	-98.7	777.8	326.9	297.8	29.08	11.243	CC, ES, SF		
7,700.0	7,324.0	7,403.8	7,340.9	16.0	17.0	-91.38	-98.7	777.8	339.9	310.3	29.61	11.477			
7,800.0	7,324.0	7,400.3	7,337.3	16.7	17.0	-90.76	-98.8	777.9	380.0	349.7	30.35	12.520			
7,900.0	7,324.0	7,396.8	7,333.8	17.5	17.0	-90.14	-98.9	778.0	439.7	408.4	31.26	14.068			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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		
9,900.0	7,324.0	7,279.0	7,279.0	46.2	6.3	-90.00	-2,647.3	877.8	496.3	444.4	51.90	9.562			
10,000.0	7,324.0	7,279.0	7,279.0	47.9	6.3	-90.00	-2,647.3	877.8	453.3	399.7	53.59	8.460			
10,100.0	7,324.0	7,279.0	7,279.0	49.6	6.3	-90.00	-2,647.3	877.8	429.8	374.5	55.28	7.775			
10,154.0	7,324.0	7,279.0	7,279.0	50.5	6.3	-90.00	-2,647.3	877.8	426.4	370.2	56.19	7.588	CC, ES		
10,200.0	7,324.0	7,279.0	7,279.0	51.2	6.3	-90.00	-2,647.3	877.8	428.8	371.9	56.97	7.528	SF		
10,300.0	7,324.0	7,279.0	7,279.0	52.9	6.3	-90.00	-2,647.3	877.8	450.7	392.0	58.67	7.682			
10,400.0	7,324.0	7,279.0	7,279.0	54.6	6.3	-90.00	-2,647.3	877.8	492.3	431.9	60.37	8.154			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well lone 1D-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 1D-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

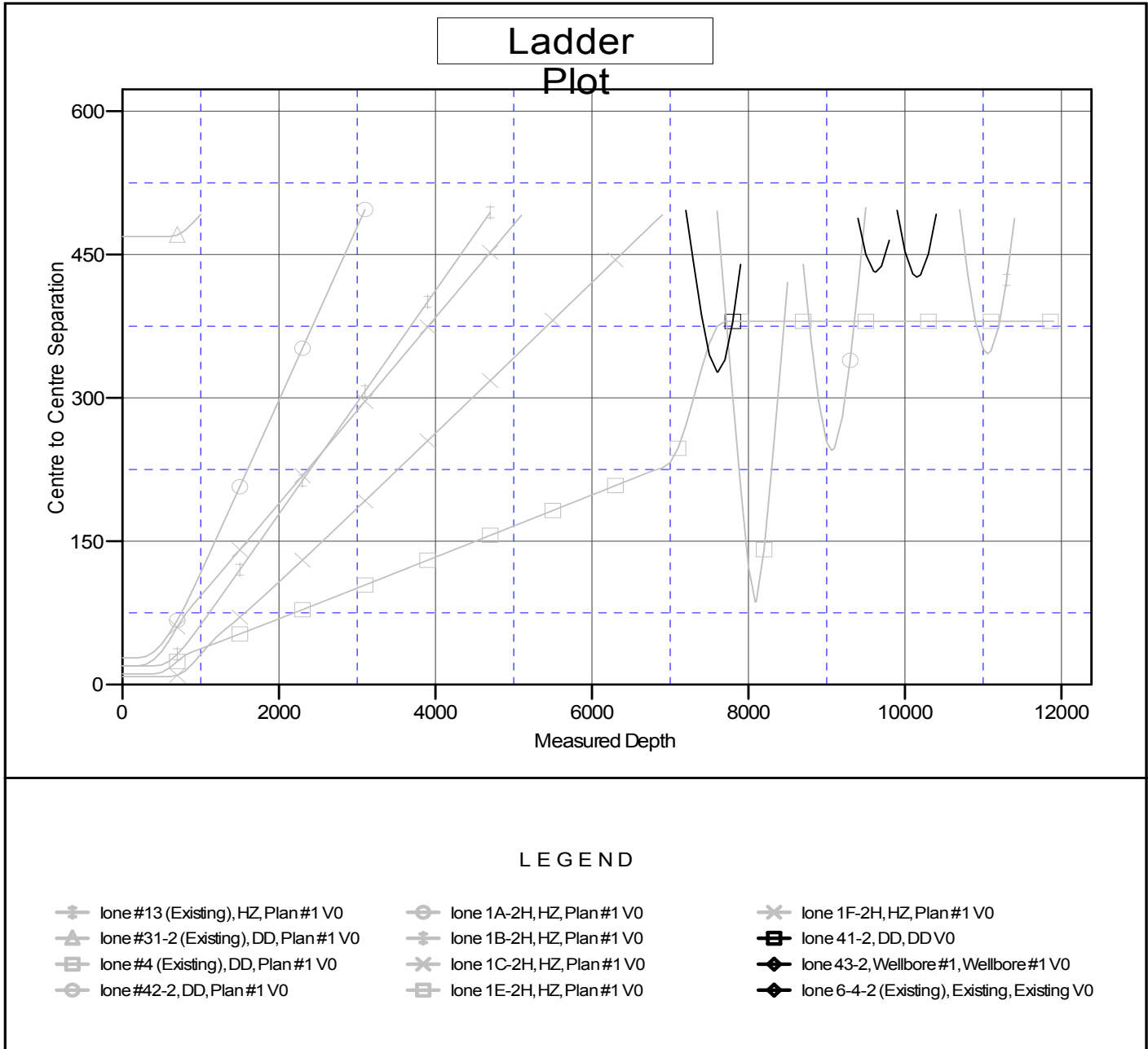
Offset Design													Offset Site Error:	0.0 ft			
Survey Program: 963-MWD													Offset Well Error:		0.0 ft		
NWNE S2-T2N-R66W (lone) - lone 6-4-2 (Existing) - Existing - Existing																	
Reference				Offset				Semi Major Axis				Distance					
Measured Depth (ft)	Vertical Depth (ft)	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				
9,400.0	7,324.0	7,603.4	7,319.4	38.1	30.4	88.20	-2,120.5	19.9	487.8	421.1	66.74	7.309					
9,500.0	7,324.0	7,602.8	7,318.8	39.7	30.4	88.11	-2,120.5	20.0	450.0	381.6	68.38	6.581					
9,600.0	7,324.0	7,602.2	7,318.1	41.3	30.4	88.03	-2,120.5	20.0	432.5	362.5	70.04	6.176					
9,627.2	7,324.0	7,602.0	7,318.0	41.8	30.4	88.00	-2,120.5	20.0	431.7	361.2	70.49	6.124	CC, ES				
9,700.0	7,324.0	7,601.5	7,317.5	42.9	30.4	87.94	-2,120.5	20.0	437.8	366.1	71.70	6.106	SF				
9,800.0	7,324.0	7,600.8	7,316.8	44.6	30.4	87.85	-2,120.5	20.0	465.0	391.6	73.36	6.338					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b> EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b> Well lone 1D-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 1D-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 1D-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