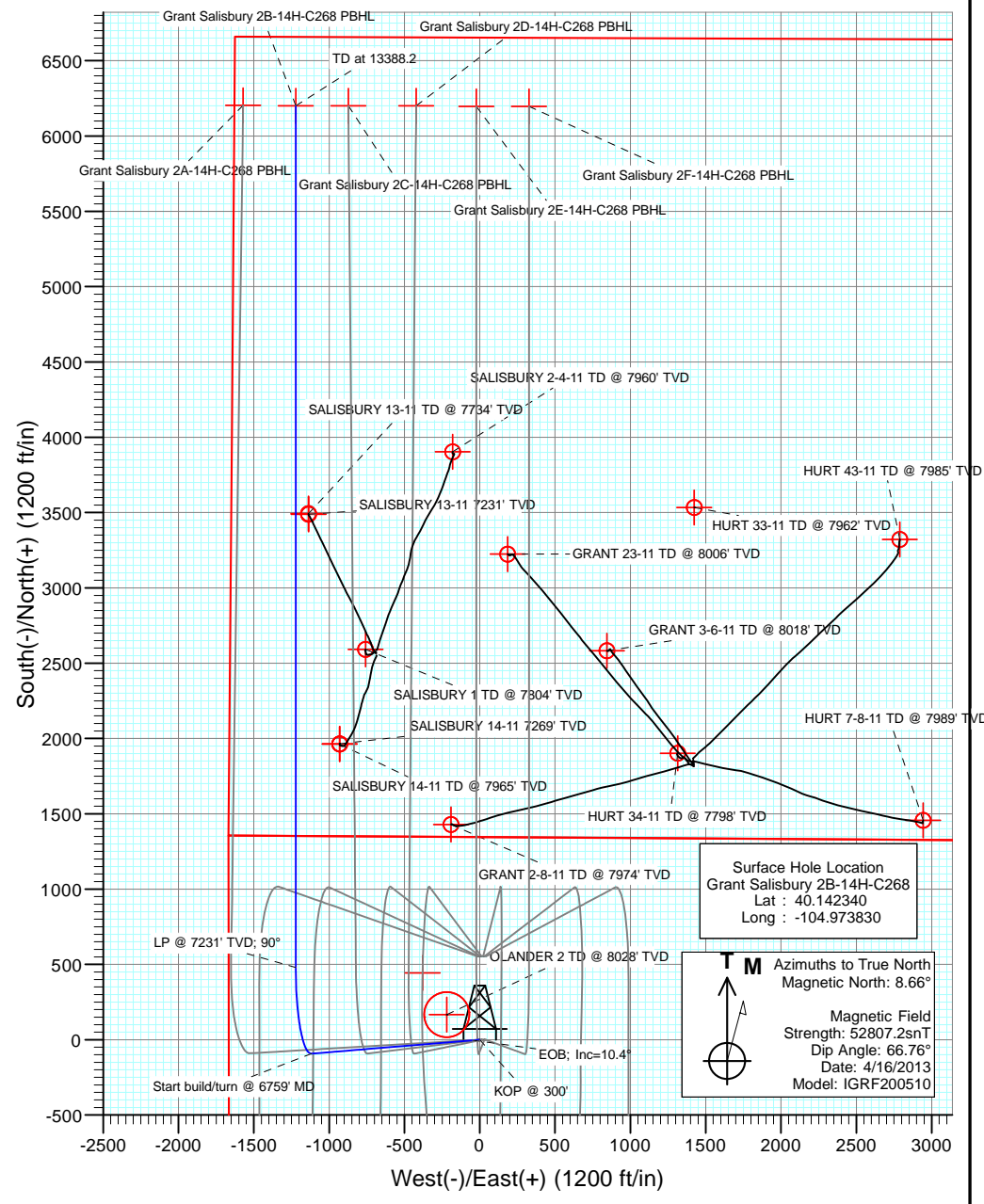
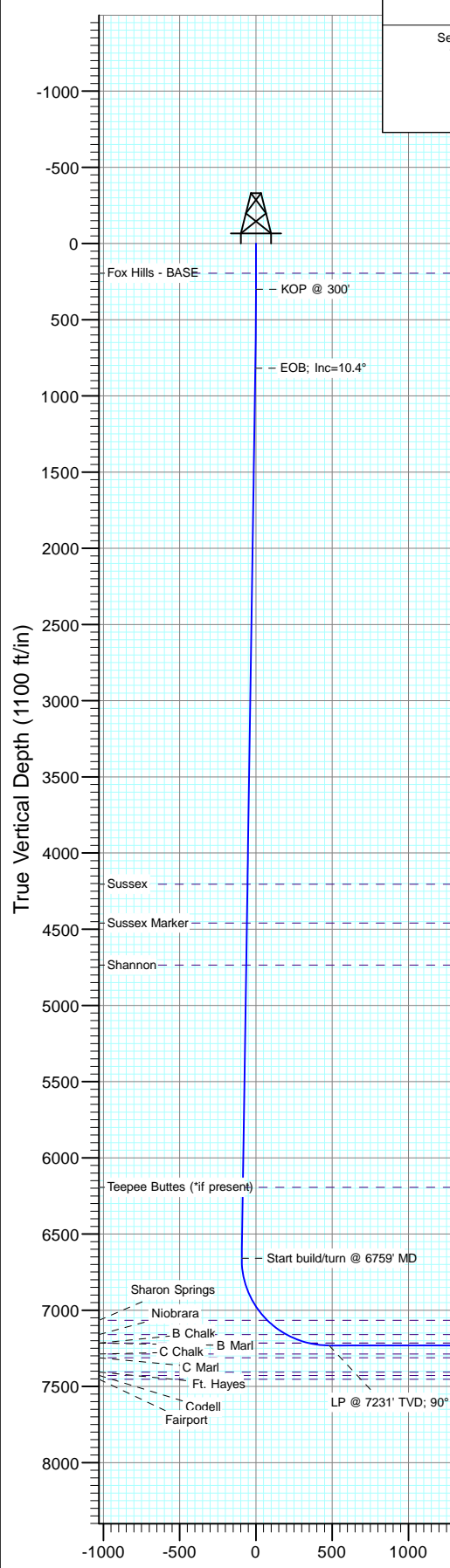




Project: DJ Wattenberg  
 Site: S14-T2N-R68W (Grant Elmquist/Salisbury)  
 Well: Grant Salisbury 2B-14H-C268  
 Wellbore: Hz  
 Design: Plan #1



SECTION DETAILS											Annotation
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target	
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	0.0	KOP @ 300'
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	0.0	EOB; Inc=10.4°
3	620.6	10.41	265.25	817.7	-3.9	-47.0	2.00	265.25	-3.9	0.0	Start build/turn @ 6759' MD
4	6759.6	10.41	265.25	6659.0	-92.8	-1116.7	0.00	0.00	-92.8	0.0	LP @ 7231' TVD; 90°
5	7668.2	90.00	0.00	7231.0	480.1	-1221.4	10.00	94.67	480.1	0.0	TD at 13388.2
6	13388.2	90.00	0.00	7231.0	6200.1	-1221.4	0.00	0.00	6200.1	Grant Salisbury 2B-14H-C268 PBHLTD at 13388.2	



DESIGN TARGET DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Grant Salisbury 2B-14H-C268 PBHL	6200.1	-1221.4	1301329.74	3145848.00	40.159360	-104.978200

Plan #1  
 Grant Salisbury 2B-14H-C268  
 13xxx: LR  
 KB @ 4894.0ft  
 Ground Elevation @ 4881.0  
 North American Datum 1983  
 Well Grant Salisbury 2B-14H-C268, True North

Vertical Section at 0.00° (1100 ft/in)

# Cathedral Energy Services

## Planning Report

<b>Database:</b> USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b> Well Grant Salisbury 2B-14H-C268
<b>Company:</b> EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b> KB @ 4894.0ft
<b>Project:</b> DJ Wattenberg	<b>MD Reference:</b> KB @ 4894.0ft
<b>Site:</b> S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>North Reference:</b> True
<b>Well:</b> Grant Salisbury 2B-14H-C268	<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> S14-T2N-R68W (Grant Elmquist/Salisbury)					
<b>Site Position:</b>		<b>Northing:</b>	1,295,686.81 ft	<b>Latitude:</b>	40.143850
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,147,060.98 ft	<b>Longitude:</b>	-104.973980
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.34 °

<b>Well</b> Grant Salisbury 2B-14H-C268						
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,295,136.99 ft	<b>Latitude:</b>	40.142340
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	3,147,106.18 ft	<b>Longitude:</b>	-104.973830
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	4,881.0 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	4/16/2013	(°)	(°)	(nT)
			8.66	66.76	52,807

<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	0.00

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
820.6	10.41	265.25	817.7	-3.9	-47.0	2.00	2.00	0.00	265.25	
6,759.6	10.41	265.25	6,659.0	-92.8	-1,116.7	0.00	0.00	0.00	0.00	
7,668.2	90.00	0.00	7,231.0	480.1	-1,221.4	10.00	8.76	10.43	94.67	
13,388.2	90.00	0.00	7,231.0	6,200.1	-1,221.4	0.00	0.00	0.00	0.00	Grant Salisbury 2B-14

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>North Reference:</b>	True
<b>Well:</b>	Grant Salisbury 2B-14H-C268	<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
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	
194.0	0.00	0.00	194.0	0.0	0.0	0.0	0.00	0.00	Fox Hills - BASE
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
400.0	2.00	265.25	400.0	-0.1	-1.7	-0.1	2.00	2.00	
500.0	4.00	265.25	499.8	-0.6	-7.0	-0.6	2.00	2.00	
600.0	6.00	265.25	599.5	-1.3	-15.6	-1.3	2.00	2.00	
700.0	8.00	265.25	698.7	-2.3	-27.8	-2.3	2.00	2.00	
800.0	10.00	265.25	797.5	-3.6	-43.4	-3.6	2.00	2.00	
820.6	10.41	265.25	817.7	-3.9	-47.0	-3.9	2.00	2.00	EOB; Inc=10.4°
900.0	10.41	265.25	895.8	-5.1	-61.3	-5.1	0.00	0.00	
1,000.0	10.41	265.25	994.2	-6.6	-79.3	-6.6	0.00	0.00	
1,100.0	10.41	265.25	1,092.5	-8.1	-97.3	-8.1	0.00	0.00	
1,200.0	10.41	265.25	1,190.9	-9.6	-115.3	-9.6	0.00	0.00	
1,300.0	10.41	265.25	1,289.2	-11.1	-133.4	-11.1	0.00	0.00	
1,400.0	10.41	265.25	1,387.6	-12.6	-151.4	-12.6	0.00	0.00	
1,500.0	10.41	265.25	1,486.0	-14.1	-169.4	-14.1	0.00	0.00	
1,600.0	10.41	265.25	1,584.3	-15.6	-187.4	-15.6	0.00	0.00	
1,700.0	10.41	265.25	1,682.7	-17.1	-205.4	-17.1	0.00	0.00	
1,800.0	10.41	265.25	1,781.0	-18.6	-223.4	-18.6	0.00	0.00	
1,900.0	10.41	265.25	1,879.4	-20.1	-241.4	-20.1	0.00	0.00	
2,000.0	10.41	265.25	1,977.7	-21.6	-259.4	-21.6	0.00	0.00	
2,100.0	10.41	265.25	2,076.1	-23.1	-277.4	-23.1	0.00	0.00	
2,200.0	10.41	265.25	2,174.4	-24.5	-295.4	-24.5	0.00	0.00	
2,300.0	10.41	265.25	2,272.8	-26.0	-313.5	-26.0	0.00	0.00	
2,400.0	10.41	265.25	2,371.1	-27.5	-331.5	-27.5	0.00	0.00	
2,500.0	10.41	265.25	2,469.5	-29.0	-349.5	-29.0	0.00	0.00	
2,600.0	10.41	265.25	2,567.8	-30.5	-367.5	-30.5	0.00	0.00	
2,700.0	10.41	265.25	2,666.2	-32.0	-385.5	-32.0	0.00	0.00	
2,800.0	10.41	265.25	2,764.5	-33.5	-403.5	-33.5	0.00	0.00	
2,900.0	10.41	265.25	2,862.9	-35.0	-421.5	-35.0	0.00	0.00	
3,000.0	10.41	265.25	2,961.3	-36.5	-439.5	-36.5	0.00	0.00	
3,100.0	10.41	265.25	3,059.6	-38.0	-457.5	-38.0	0.00	0.00	
3,200.0	10.41	265.25	3,158.0	-39.5	-475.6	-39.5	0.00	0.00	
3,300.0	10.41	265.25	3,256.3	-41.0	-493.6	-41.0	0.00	0.00	
3,400.0	10.41	265.25	3,354.7	-42.5	-511.6	-42.5	0.00	0.00	
3,500.0	10.41	265.25	3,453.0	-44.0	-529.6	-44.0	0.00	0.00	
3,600.0	10.41	265.25	3,551.4	-45.5	-547.6	-45.5	0.00	0.00	
3,700.0	10.41	265.25	3,649.7	-47.0	-565.6	-47.0	0.00	0.00	
3,800.0	10.41	265.25	3,748.1	-48.5	-583.6	-48.5	0.00	0.00	
3,900.0	10.41	265.25	3,846.4	-50.0	-601.6	-50.0	0.00	0.00	
4,000.0	10.41	265.25	3,944.8	-51.5	-619.6	-51.5	0.00	0.00	
4,100.0	10.41	265.25	4,043.1	-53.0	-637.6	-53.0	0.00	0.00	
4,200.0	10.41	265.25	4,141.5	-54.5	-655.7	-54.5	0.00	0.00	
4,263.6	10.41	265.25	4,204.0	-55.4	-667.1	-55.4	0.00	0.00	Sussex
4,300.0	10.41	265.25	4,239.8	-56.0	-673.7	-56.0	0.00	0.00	
4,400.0	10.41	265.25	4,338.2	-57.5	-691.7	-57.5	0.00	0.00	
4,500.0	10.41	265.25	4,436.6	-59.0	-709.7	-59.0	0.00	0.00	
4,522.8	10.41	265.25	4,459.0	-59.3	-713.8	-59.3	0.00	0.00	Sussex Marker
4,600.0	10.41	265.25	4,534.9	-60.5	-727.7	-60.5	0.00	0.00	
4,700.0	10.41	265.25	4,633.3	-62.0	-745.7	-62.0	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>North Reference:</b>	True
<b>Well:</b>	Grant Salisbury 2B-14H-C268	<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
4,800.0	10.41	265.25	4,731.6	-63.5	-763.7	-63.5	0.00	0.00	
4,803.4	10.41	265.25	4,735.0	-63.5	-764.3	-63.5	0.00	0.00	Shannon
4,900.0	10.41	265.25	4,830.0	-65.0	-781.7	-65.0	0.00	0.00	
5,000.0	10.41	265.25	4,928.3	-66.5	-799.7	-66.5	0.00	0.00	
5,100.0	10.41	265.25	5,026.7	-67.9	-817.8	-67.9	0.00	0.00	
5,200.0	10.41	265.25	5,125.0	-69.4	-835.8	-69.4	0.00	0.00	
5,300.0	10.41	265.25	5,223.4	-70.9	-853.8	-70.9	0.00	0.00	
5,400.0	10.41	265.25	5,321.7	-72.4	-871.8	-72.4	0.00	0.00	
5,500.0	10.41	265.25	5,420.1	-73.9	-889.8	-73.9	0.00	0.00	
5,600.0	10.41	265.25	5,518.4	-75.4	-907.8	-75.4	0.00	0.00	
5,700.0	10.41	265.25	5,616.8	-76.9	-925.8	-76.9	0.00	0.00	
5,800.0	10.41	265.25	5,715.1	-78.4	-943.8	-78.4	0.00	0.00	
5,900.0	10.41	265.25	5,813.5	-79.9	-961.8	-79.9	0.00	0.00	
6,000.0	10.41	265.25	5,911.9	-81.4	-979.8	-81.4	0.00	0.00	
6,100.0	10.41	265.25	6,010.2	-82.9	-997.9	-82.9	0.00	0.00	
6,200.0	10.41	265.25	6,108.6	-84.4	-1,015.9	-84.4	0.00	0.00	
6,286.9	10.41	265.25	6,194.0	-85.7	-1,031.5	-85.7	0.00	0.00	Teepee Buttes (*if present)
6,300.0	10.41	265.25	6,206.9	-85.9	-1,033.9	-85.9	0.00	0.00	
6,400.0	10.41	265.25	6,305.3	-87.4	-1,051.9	-87.4	0.00	0.00	
6,500.0	10.41	265.25	6,403.6	-88.9	-1,069.9	-88.9	0.00	0.00	
6,600.0	10.41	265.25	6,502.0	-90.4	-1,087.9	-90.4	0.00	0.00	
6,700.0	10.41	265.25	6,600.3	-91.9	-1,105.9	-91.9	0.00	0.00	
6,759.6	10.41	265.25	6,659.0	-92.8	-1,116.7	-92.8	0.00	0.00	Start build/turn @ 6759' MD
6,800.0	10.85	287.14	6,698.7	-92.0	-1,123.9	-92.0	10.00	1.08	
6,900.0	16.72	322.43	6,795.9	-77.8	-1,141.7	-77.8	10.00	5.87	
7,000.0	25.28	337.18	6,889.2	-46.6	-1,158.8	-46.6	10.00	8.56	
7,100.0	34.59	344.60	6,975.8	0.6	-1,174.7	0.6	10.00	9.31	
7,200.0	44.17	349.13	7,053.1	62.3	-1,188.8	62.3	10.00	9.58	
7,218.3	45.94	349.79	7,066.0	75.0	-1,191.2	75.0	10.00	9.67	Sharon Springs
7,300.0	53.88	352.32	7,118.6	136.7	-1,200.8	136.7	10.00	9.72	
7,377.5	61.45	354.28	7,160.0	201.7	-1,208.4	201.7	10.00	9.77	Niobrara
7,400.0	63.65	354.80	7,170.4	221.6	-1,210.3	221.6	10.00	9.79	
7,500.0	73.46	356.88	7,206.9	314.3	-1,217.0	314.3	10.00	9.81	
7,535.7	76.97	357.57	7,216.0	348.8	-1,218.7	348.8	10.00	9.82	B Chalk - B Marl
7,600.0	83.29	358.77	7,227.0	412.1	-1,220.7	412.1	10.00	9.83	
7,668.2	90.00	0.00	7,231.0	480.1	-1,221.4	480.1	10.00	9.84	LP @ 7231' TVD; 90°
7,700.0	90.00	0.00	7,231.0	511.9	-1,221.4	511.9	0.00	0.00	
7,800.0	90.00	0.00	7,231.0	611.9	-1,221.4	611.9	0.00	0.00	
7,900.0	90.00	0.00	7,231.0	711.9	-1,221.4	711.9	0.00	0.00	
8,000.0	90.00	0.00	7,231.0	811.9	-1,221.4	811.9	0.00	0.00	
8,100.0	90.00	0.00	7,231.0	911.9	-1,221.4	911.9	0.00	0.00	
8,200.0	90.00	0.00	7,231.0	1,011.9	-1,221.4	1,011.9	0.00	0.00	
8,300.0	90.00	0.00	7,231.0	1,111.9	-1,221.4	1,111.9	0.00	0.00	
8,400.0	90.00	0.00	7,231.0	1,211.9	-1,221.4	1,211.9	0.00	0.00	
8,500.0	90.00	0.00	7,231.0	1,311.9	-1,221.4	1,311.9	0.00	0.00	
8,600.0	90.00	0.00	7,231.0	1,411.9	-1,221.4	1,411.9	0.00	0.00	
8,700.0	90.00	0.00	7,231.0	1,511.9	-1,221.4	1,511.9	0.00	0.00	
8,800.0	90.00	0.00	7,231.0	1,611.9	-1,221.4	1,611.9	0.00	0.00	
8,900.0	90.00	0.00	7,231.0	1,711.9	-1,221.4	1,711.9	0.00	0.00	
9,000.0	90.00	0.00	7,231.0	1,811.9	-1,221.4	1,811.9	0.00	0.00	
9,100.0	90.00	0.00	7,231.0	1,911.9	-1,221.4	1,911.9	0.00	0.00	
9,200.0	90.00	0.00	7,231.0	2,011.9	-1,221.4	2,011.9	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>North Reference:</b>	True
<b>Well:</b>	Grant Salisbury 2B-14H-C268	<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
9,300.0	90.00	0.00	7,231.0	2,111.9	-1,221.4	2,111.9	0.00	0.00	
9,400.0	90.00	0.00	7,231.0	2,211.9	-1,221.4	2,211.9	0.00	0.00	
9,500.0	90.00	0.00	7,231.0	2,311.9	-1,221.4	2,311.9	0.00	0.00	
9,600.0	90.00	0.00	7,231.0	2,411.9	-1,221.4	2,411.9	0.00	0.00	
9,700.0	90.00	0.00	7,231.0	2,511.9	-1,221.4	2,511.9	0.00	0.00	
9,800.0	90.00	0.00	7,231.0	2,611.9	-1,221.4	2,611.9	0.00	0.00	
9,900.0	90.00	0.00	7,231.0	2,711.9	-1,221.4	2,711.9	0.00	0.00	
10,000.0	90.00	0.00	7,231.0	2,811.9	-1,221.4	2,811.9	0.00	0.00	
10,100.0	90.00	0.00	7,231.0	2,911.9	-1,221.4	2,911.9	0.00	0.00	
10,200.0	90.00	0.00	7,231.0	3,011.9	-1,221.4	3,011.9	0.00	0.00	
10,300.0	90.00	0.00	7,231.0	3,111.9	-1,221.4	3,111.9	0.00	0.00	
10,400.0	90.00	0.00	7,231.0	3,211.9	-1,221.4	3,211.9	0.00	0.00	
10,500.0	90.00	0.00	7,231.0	3,311.9	-1,221.4	3,311.9	0.00	0.00	
10,600.0	90.00	0.00	7,231.0	3,411.9	-1,221.4	3,411.9	0.00	0.00	
10,700.0	90.00	0.00	7,231.0	3,511.9	-1,221.4	3,511.9	0.00	0.00	
10,800.0	90.00	0.00	7,231.0	3,611.9	-1,221.4	3,611.9	0.00	0.00	
10,900.0	90.00	0.00	7,231.0	3,711.9	-1,221.4	3,711.9	0.00	0.00	
11,000.0	90.00	0.00	7,231.0	3,811.9	-1,221.4	3,811.9	0.00	0.00	
11,100.0	90.00	0.00	7,231.0	3,911.9	-1,221.4	3,911.9	0.00	0.00	
11,200.0	90.00	0.00	7,231.0	4,011.9	-1,221.4	4,011.9	0.00	0.00	
11,300.0	90.00	0.00	7,231.0	4,111.9	-1,221.4	4,111.9	0.00	0.00	
11,400.0	90.00	0.00	7,231.0	4,211.9	-1,221.4	4,211.9	0.00	0.00	
11,500.0	90.00	0.00	7,231.0	4,311.9	-1,221.4	4,311.9	0.00	0.00	
11,600.0	90.00	0.00	7,231.0	4,411.9	-1,221.4	4,411.9	0.00	0.00	
11,700.0	90.00	0.00	7,231.0	4,511.9	-1,221.4	4,511.9	0.00	0.00	
11,800.0	90.00	0.00	7,231.0	4,611.9	-1,221.4	4,611.9	0.00	0.00	
11,900.0	90.00	0.00	7,231.0	4,711.9	-1,221.4	4,711.9	0.00	0.00	
12,000.0	90.00	0.00	7,231.0	4,811.9	-1,221.4	4,811.9	0.00	0.00	
12,100.0	90.00	0.00	7,231.0	4,911.9	-1,221.4	4,911.9	0.00	0.00	
12,200.0	90.00	0.00	7,231.0	5,011.9	-1,221.4	5,011.9	0.00	0.00	
12,300.0	90.00	0.00	7,231.0	5,111.9	-1,221.4	5,111.9	0.00	0.00	
12,400.0	90.00	0.00	7,231.0	5,211.9	-1,221.4	5,211.9	0.00	0.00	
12,500.0	90.00	0.00	7,231.0	5,311.9	-1,221.4	5,311.9	0.00	0.00	
12,600.0	90.00	0.00	7,231.0	5,411.9	-1,221.4	5,411.9	0.00	0.00	
12,700.0	90.00	0.00	7,231.0	5,511.9	-1,221.4	5,511.9	0.00	0.00	
12,800.0	90.00	0.00	7,231.0	5,611.9	-1,221.4	5,611.9	0.00	0.00	
12,900.0	90.00	0.00	7,231.0	5,711.9	-1,221.4	5,711.9	0.00	0.00	
13,000.0	90.00	0.00	7,231.0	5,811.9	-1,221.4	5,811.9	0.00	0.00	
13,100.0	90.00	0.00	7,231.0	5,911.9	-1,221.4	5,911.9	0.00	0.00	
13,200.0	90.00	0.00	7,231.0	6,011.9	-1,221.4	6,011.9	0.00	0.00	
13,300.0	90.00	0.00	7,231.0	6,111.9	-1,221.4	6,111.9	0.00	0.00	
13,388.2	90.00	0.00	7,231.0	6,200.1	-1,221.4	6,200.1	0.00	0.00	TD at 13388.2 - Grant Salisbury 2B-14H-C268 I

# Cathedral Energy Services

## Planning Report

<b>Database:</b> USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b> Well Grant Salisbury 2B-14H-C268
<b>Company:</b> EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b> KB @ 4894.0ft
<b>Project:</b> DJ Wattenberg	<b>MD Reference:</b> KB @ 4894.0ft
<b>Site:</b> S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>North Reference:</b> True
<b>Well:</b> Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Wellbore:</b> Hz	
<b>Design:</b> Plan #1	

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
Grant Salisbury 2B-14H- - plan hits target center - Point	0.00	0.00	7,231.0	6,200.1	-1,221.4	1,301,329.74	3,145,848.00	40.159360	-104.978200

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
194.0	194.0	Fox Hills - BASE				
4,263.6	4,204.0	Sussex				
4,522.8	4,459.0	Sussex Marker				
4,803.4	4,735.0	Shannon				
6,286.9	6,194.0	Teepee Buttes (*if present)				
7,218.3	7,066.0	Sharon Springs				
7,377.5	7,160.0	Niobrara				
7,535.7	7,216.0	B Marl				
7,535.7	7,216.0	B Chalk				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
		(ft)	(ft)		
300.0	300.0	0.0	0.0	KOP @ 300'	
820.6	817.7	-3.9	-47.0	EOB; Inc=10.4°	
6,759.6	6,659.0	-92.8	-1,116.7	Start build/turn @ 6759' MD	
7,668.2	7,231.0	480.1	-1,221.4	LP @ 7231' TVD; 90°	
13,388.2	7,231.0	6,200.1	-1,221.4	TD at 13388.2	

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

**DJ Wattenberg**

**S14-T2N-R68W (Grant Elmquist/Salisbury)**

**Grant Salisbury 2B-14H-C268**

**Hz**

**Plan #1**

## **Anticollision Report**

**08 May, 2013**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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>	5/8/2013		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.0	13,388.2	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 Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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 Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (ft)	Measured Depth (ft)	Between Centres (ft)	Between Ellipses (ft)		
S14-T2N-R68W (Grant Elmquist/Salisbury)						
BERGER 32-23 (EXISTING) - EXISTING - NO SURVEY						Out of range
DEL CAMINO 11-14 (EXISTING) - EXISTING - NO SURV						Out of range
ELMQUIST 0-0-23 (EXISTING) - EXISTING - SURVEYS						Out of range
ELMQUIST 1 (EXISTING) - EXISTING - GYRO						Out of range
ELMQUIST 11-23 (EXISTING) - EXISTING - GYRO						Out of range
ELMQUIST 12-23 (EXISTING) - EXISTING - NO SURVE						Out of range
ELMQUIST 21-23 (EXISTING) - EXISTING - SURVEYS						Out of range
ELMQUIST 2-4-23 (EXISTING) - EXISTING - SURVEYS						Out of range
ELMQUIST 4-2-23 (EXISTING) - EXISTING - SURVEYS						Out of range
ELMQUIST 4-4-23 (EXISTING) - EXISTING - SURVEYS						Out of range
GRANT 23-11 (EXISTING) - EXISTING - SURVEYS						Out of range
GRANT 2-8-11 (EXISTING) - EXISTING - SURVEYS						Out of range
GRANT 3-6-11 (EXISTING) - EXISTING - SURVEYS						Out of range
Grant Elmquist 2A-14H-C268 - Hz - Plan #1	7,784.5	7,541.6	242.2	211.7	7.946	CC
Grant Elmquist 2A-14H-C268 - Hz - Plan #1	7,800.0	7,526.8	242.2	211.6	7.913	ES
Grant Elmquist 2A-14H-C268 - Hz - Plan #1	7,900.0	7,437.2	245.6	214.4	7.853	SF
Grant Elmquist 2B-14H-C268 - Hz - Plan #1	8,020.8	7,405.5	152.1	118.0	4.464	CC, ES, SF
Grant Elmquist 2C-14H-C268 - Hz - Plan #1						Out of range
Grant Elmquist 2D-14H-C268 - Hz - Plan #1						Out of range
Grant Elmquist 2E-14H-C268 - Hz - Plan #1						Out of range
Grant Elmquist 2F-14H-C268 - Hz - Plan #1						Out of range
Grant Elmquist 2G-14H-C268 - Hz - Plan #1						Out of range
Grant Salisbury 2A-14H-C268 - Hz - Plan #1	200.0	200.0	8.4	7.7	12.849	CC, ES
Grant Salisbury 2A-14H-C268 - Hz - Plan #1	13,388.2	13,677.2	406.1	213.7	2.111	SF
Grant Salisbury 2C-14H-C268 - Hz - Plan #1	300.0	300.0	11.2	10.2	11.162	CC, ES
Grant Salisbury 2C-14H-C268 - Hz - Plan #1	13,388.2	13,374.3	351.4	130.4	1.590	SF
Grant Salisbury 2D-14H-C268 - Hz - Plan #1	300.0	300.0	19.6	18.6	19.534	CC, ES
Grant Salisbury 2D-14H-C268 - Hz - Plan #1	600.0	601.6	28.3	26.3	13.835	SF
Grant Salisbury 2E-14H-C268 - Hz - Plan #1	300.0	300.0	30.8	29.8	30.697	CC, ES
Grant Salisbury 2E-14H-C268 - Hz - Plan #1	500.0	499.8	37.7	36.0	22.217	SF
Grant Salisbury 2F-14H-C268 - Hz - Plan #1	300.0	300.0	39.1	38.1	39.069	CC, ES
Grant Salisbury 2F-14H-C268 - Hz - Plan #1	600.0	599.5	54.8	52.8	26.829	SF
HSR-BEAR 13-14A (EXISTING) - EXISTING - SURVEYS						Out of range
HURT 33-11 (EXISTING) - EXISTING - NO SURVEY						Out of range
HURT 34-11 (EXISTING) - EXISTING - SURVEYS						Out of range
HURT 43-11 (EXISTING) - EXISTING - SURVEYS						Out of range
HURT 7-8-11 (EXISTING) - EXISTING - SURVEYS						Out of range
MDM 33-14 (EXISTING) - EXISTING - NO SURVEYS						Out of range
MDM 34-14 (EXISTING) - EXISTING - NO SURVEYS						Out of range
NELSON 1 (EXISTING) - EXISTING - NO SURVEYS						Out of range
NELSON 23-23C (EXISTING) - EXISTING - NO SURVEY						Out of range
OLANDER 1 (EXISTING) - EXISTING - NO SURVEYS						Out of range
OLANDER 2 (EXISTING) - EXISTING - NO SURVEYS	1,691.9	1,667.7	184.1	176.4	23.933	CC
OLANDER 2 (EXISTING) - EXISTING - NO SURVEYS	1,700.0	1,675.7	184.1	176.3	23.801	ES
OLANDER 2 (EXISTING) - EXISTING - NO SURVEYS	2,200.0	2,167.4	205.7	195.7	20.674	SF
OLANDER U 14-11 (EXISTING) - EXISTING - NO SURV						Out of range
OLANDER U 14-14 (EXISTING) - EXISTING - NO SURV						Out of range
OLSON 1 (EXISTING) - PLAN ONLY - PLAN #1						Out of range
SALISBURY 1 (EXISTING) - EXISTING - GYRO	9,773.6	7,192.6	462.0	407.1	8.418	CC, ES
SALISBURY 1 (EXISTING) - EXISTING - GYRO	9,800.0	7,192.8	462.8	407.4	8.363	SF
SALISBURY 13-11 (EXISTING) - EXISTING - SURVEYS	10,676.7	7,316.0	85.0	0.2	1.002	Level 2, CC, ES, SF
SALISBURY 14-11 (EXISTING) - EXISTING - SURVEYS	9,152.4	7,271.9	292.2	237.8	5.366	CC, ES
SALISBURY 14-11 (EXISTING) - EXISTING - SURVEYS	9,200.0	7,271.9	296.1	240.8	5.359	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 Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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
S14-T2N-R68W (Grant Elmquist/Salisbury)						
Offset Well - Wellbore - Design						
SALISBURY 2-4-11 (EXISTING) - EXISTING - SURVEYS						Out of range

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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 S14-T2N-R68W (Grant Elmquist/Salisbury) - Grant Elmquist 2A-14H-C268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
7,000.0	6,889.2	8,186.5	7,200.0	24.0	31.4	-95.35	-46.6	-1,462.5	434.5	404.9	29.60	14.681		
7,100.0	6,975.8	8,139.3	7,200.0	24.3	31.1	-103.05	0.6	-1,462.5	364.8	335.3	29.55	12,346		
7,200.0	7,053.1	8,077.6	7,200.0	24.7	30.7	-103.67	62.3	-1,462.5	310.6	281.9	28.76	10.802		
7,300.0	7,118.6	8,003.2	7,200.0	25.0	30.3	-99.88	136.7	-1,462.5	274.1	245.8	28.26	9.696		
7,400.0	7,170.4	7,918.3	7,200.0	25.5	29.9	-93.74	221.6	-1,462.5	253.9	225.5	28.43	8.932		
7,500.0	7,206.9	7,825.6	7,200.0	26.0	29.5	-87.57	314.3	-1,462.5	245.6	216.8	28.80	8.529		
7,600.0	7,227.0	7,727.8	7,200.0	26.5	29.3	-83.53	412.1	-1,462.5	243.3	214.2	29.17	8.343		
7,700.0	7,231.0	7,625.8	7,195.8	27.2	29.1	-81.66	513.9	-1,461.6	242.8	213.0	29.75	8.160		
7,784.5	7,231.0	7,541.6	7,179.7	27.8	28.9	-77.78	596.4	-1,458.1	242.2	211.7	30.48	7,946 CC		
7,800.0	7,231.0	7,526.8	7,175.7	27.9	28.9	-76.80	610.6	-1,457.2	242.2	211.6	30.61	7,913 ES		
7,900.0	7,231.0	7,437.2	7,143.7	28.7	28.8	-69.13	694.0	-1,450.3	245.6	214.4	31.28	7,853 SF		
8,000.0	7,231.0	7,359.3	7,105.9	29.6	28.8	-60.46	761.6	-1,442.1	258.6	227.2	31.39	8.240		
8,100.0	7,231.0	7,293.3	7,067.2	30.6	28.7	-52.34	814.2	-1,433.7	285.4	254.5	30.96	9.218		
8,200.0	7,231.0	7,238.0	7,030.3	31.6	28.7	-45.52	854.6	-1,425.8	326.8	296.5	30.28	10,793		
8,300.0	7,231.0	7,200.0	7,002.8	32.7	28.7	-41.00	880.2	-1,419.8	381.0	351.1	29.88	12,751		
8,400.0	7,231.0	7,150.0	6,964.3	33.9	28.6	-35.47	910.9	-1,411.5	444.9	416.0	28.83	15,429		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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	
S14-T2N-R68W (Grant Elmquist/Salisbury) - Grant Elmquist 2B-14H-C268 - Hz - Plan #1													Offset Well Error:		0.0 ft
Survey Program: 0-MWD															
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		
7,100.0	6,975.8	8,278.4	7,410.0	24.3	26.2	165.59	-0.2	-1,104.5	439.8	398.7	41.06	10.710			
7,200.0	7,053.1	8,216.9	7,410.0	24.7	25.7	162.30	61.4	-1,103.9	366.9	330.1	36.82	9.966			
7,300.0	7,118.6	8,142.6	7,410.0	25.0	25.2	158.36	135.7	-1,103.1	307.4	275.4	31.94	9.623			
7,400.0	7,170.4	8,057.8	7,410.0	25.5	24.7	153.91	220.5	-1,102.2	262.9	235.6	27.29	9.634			
7,500.0	7,206.9	7,965.2	7,410.0	26.0	24.2	149.60	313.1	-1,101.3	233.8	209.8	23.99	9.745			
7,600.0	7,227.0	7,867.4	7,410.0	26.5	23.9	146.54	410.8	-1,100.2	219.1	196.2	22.87	9.580			
7,700.0	7,231.0	7,741.9	7,402.1	27.2	23.6	144.13	535.8	-1,097.7	212.5	188.8	23.69	8.970			
7,800.0	7,231.0	7,615.1	7,367.8	27.9	23.4	136.37	657.5	-1,091.0	194.5	168.5	25.96	7.491			
7,900.0	7,231.0	7,507.6	7,318.7	28.7	23.3	122.19	752.5	-1,082.2	169.5	139.7	29.82	5.684			
8,000.0	7,231.0	7,421.0	7,266.9	29.6	23.3	103.60	821.2	-1,073.2	152.8	119.2	33.55	4.554			
8,020.8	7,231.0	7,405.5	7,256.5	29.8	23.3	99.65	832.6	-1,071.4	152.1	118.0	34.08	4.464	CC, ES, SF		
8,100.0	7,231.0	7,352.8	7,219.2	30.6	23.3	85.67	869.3	-1,065.1	162.4	127.3	35.14	4.622			
8,200.0	7,231.0	7,300.0	7,178.6	31.6	23.4	72.19	902.3	-1,058.3	203.3	168.3	35.03	5.804			
8,300.0	7,231.0	7,250.0	7,137.5	32.7	23.3	61.19	930.0	-1,051.5	265.9	231.8	34.04	7.811			
8,400.0	7,231.0	7,221.8	7,113.4	33.9	23.3	55.92	944.0	-1,047.5	340.4	306.5	33.84	10.057			
8,500.0	7,231.0	7,200.0	7,094.3	35.1	23.3	52.32	954.0	-1,044.4	422.1	388.2	33.93	12.441			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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 S14-T2N-R68W (Grant Elmquist/Salisbury) - Grant Salisbury 2A-14H-C268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-8.4	8.4					
100.0	100.0	100.0	100.0	0.2	0.2	-90.00	0.0	-8.4	8.4	8.1	0.30	27.617		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-8.4	8.4	7.7	0.65	12.849	CC, ES	
300.0	300.0	299.7	299.6	0.5	0.5	-90.58	-0.1	-10.1	10.1	9.1	1.00	10.075		
400.0	400.0	399.2	399.0	0.7	0.7	3.61	-0.4	-15.3	13.6	12.2	1.35	10.075		
500.0	499.8	498.6	498.1	0.9	0.9	3.56	-0.9	-23.9	17.0	15.4	1.70	10.050		
600.0	599.5	597.9	596.6	1.1	1.2	3.75	-1.6	-35.9	20.5	18.4	2.04	10.028		
700.0	698.7	697.1	694.6	1.3	1.5	4.07	-2.6	-51.3	23.9	21.5	2.39	10.005		
800.0	797.5	796.1	791.8	1.7	1.9	4.49	-3.7	-70.1	27.3	24.6	2.73	9.980		
900.0	895.8	895.3	888.5	2.0	2.3	4.81	-5.0	-92.1	31.7	28.6	3.09	10.259		
1,000.0	994.2	995.1	985.6	2.3	2.7	4.95	-6.4	-115.3	37.0	33.6	3.44	10.758		
1,100.0	1,092.5	1,095.0	1,082.7	2.7	3.1	5.06	-7.8	-138.6	42.4	38.6	3.80	11.164		
1,200.0	1,190.9	1,194.8	1,179.8	3.0	3.6	5.14	-9.2	-161.8	47.8	43.6	4.15	11.500		
1,300.0	1,289.2	1,294.7	1,276.9	3.4	4.0	5.21	-10.5	-185.0	53.1	48.6	4.51	11.782		
1,400.0	1,387.6	1,394.5	1,374.0	3.7	4.5	5.27	-11.9	-208.3	58.5	53.6	4.87	12.023		
1,500.0	1,486.0	1,494.4	1,471.1	4.1	4.9	5.31	-13.3	-231.5	63.9	58.6	5.22	12.231		
1,600.0	1,584.3	1,594.2	1,568.2	4.4	5.4	5.35	-14.7	-254.7	69.2	63.7	5.58	12.412		
1,700.0	1,682.7	1,694.1	1,665.3	4.8	5.8	5.38	-16.1	-277.9	74.6	68.7	5.93	12.572		
1,800.0	1,781.0	1,794.0	1,762.4	5.2	6.3	5.41	-17.5	-301.2	80.0	73.7	6.29	12.713		
1,900.0	1,879.4	1,893.8	1,859.5	5.5	6.7	5.44	-18.9	-324.4	85.3	78.7	6.65	12.839		
2,000.0	1,977.7	1,993.7	1,956.6	5.9	7.2	5.46	-20.2	-347.6	90.7	83.7	7.00	12.952		
2,100.0	2,076.1	2,093.5	2,053.7	6.3	7.6	5.48	-21.6	-370.9	96.1	88.7	7.36	13.054		
2,200.0	2,174.4	2,193.4	2,150.9	6.6	8.1	5.50	-23.0	-394.1	101.4	93.7	7.71	13.147		
2,300.0	2,272.8	2,293.2	2,248.0	7.0	8.5	5.51	-24.4	-417.3	106.8	98.7	8.07	13.232		
2,400.0	2,371.1	2,393.1	2,345.1	7.3	9.0	5.53	-25.8	-440.5	112.2	103.7	8.43	13.309		
2,500.0	2,469.5	2,492.9	2,442.2	7.7	9.4	5.54	-27.2	-463.8	117.5	108.7	8.78	13.380		
2,600.0	2,567.8	2,592.8	2,539.3	8.1	9.9	5.55	-28.6	-487.0	122.9	113.7	9.14	13.445		
2,700.0	2,666.2	2,692.7	2,636.4	8.4	10.3	5.56	-29.9	-510.2	128.3	118.8	9.50	13.506		
2,800.0	2,764.5	2,792.5	2,733.5	8.8	10.8	5.57	-31.3	-533.5	133.6	123.8	9.85	13.562		
2,900.0	2,862.9	2,892.4	2,830.6	9.2	11.2	5.58	-32.7	-556.7	139.0	128.8	10.21	13.614		
3,000.0	2,961.3	2,992.2	2,927.7	9.5	11.7	5.59	-34.1	-579.9	144.3	133.8	10.57	13.663		
3,100.0	3,059.6	3,092.1	3,024.8	9.9	12.1	5.60	-35.5	-603.1	149.7	138.8	10.92	13.708		
3,200.0	3,158.0	3,191.9	3,121.9	10.2	12.6	5.60	-36.9	-626.4	155.1	143.8	11.28	13.751		
3,300.0	3,256.3	3,291.8	3,219.0	10.6	13.0	5.61	-38.3	-649.6	160.4	148.8	11.63	13.791		
3,400.0	3,354.7	3,391.6	3,316.1	11.0	13.5	5.62	-39.6	-672.8	165.8	153.8	11.99	13.828		
3,500.0	3,453.0	3,491.5	3,413.2	11.3	13.9	5.62	-41.0	-696.0	171.2	158.8	12.35	13.864		
3,600.0	3,551.4	3,591.4	3,510.3	11.7	14.4	5.63	-42.4	-719.3	176.5	163.8	12.70	13.897		
3,700.0	3,649.7	3,691.2	3,607.5	12.1	14.8	5.63	-43.8	-742.5	181.9	168.8	13.06	13.929		
3,800.0	3,748.1	3,791.1	3,704.6	12.4	15.3	5.64	-45.2	-765.7	187.3	173.9	13.42	13.959		
3,900.0	3,846.4	3,890.9	3,801.7	12.8	15.7	5.64	-46.6	-789.0	192.6	178.9	13.77	13.987		
4,000.0	3,944.8	3,990.8	3,898.8	13.2	16.2	5.65	-48.0	-812.2	198.0	183.9	14.13	14.014		
4,100.0	4,043.1	4,090.6	3,995.9	13.5	16.6	5.65	-49.3	-835.4	203.4	188.9	14.49	14.040		
4,200.0	4,141.5	4,190.5	4,093.0	13.9	17.1	5.66	-50.7	-858.6	208.7	193.9	14.84	14.064		
4,300.0	4,239.8	4,290.4	4,190.1	14.3	17.5	5.66	-52.1	-881.9	214.1	198.9	15.20	14.087		
4,400.0	4,338.2	4,390.2	4,287.2	14.6	18.0	5.66	-53.5	-905.1	219.5	203.9	15.55	14.109		
4,500.0	4,436.6	4,490.1	4,384.3	15.0	18.4	5.67	-54.9	-928.3	224.8	208.9	15.91	14.130		
4,600.0	4,534.9	4,589.9	4,481.4	15.3	18.9	5.67	-56.3	-951.6	230.2	213.9	16.27	14.151		
4,700.0	4,633.3	4,689.8	4,578.5	15.7	19.3	5.67	-57.7	-974.8	235.6	218.9	16.62	14.170		
4,800.0	4,731.6	4,789.6	4,675.6	16.1	19.8	5.68	-59.0	-998.0	240.9	224.0	16.98	14.188		
4,900.0	4,830.0	4,889.5	4,772.7	16.4	20.2	5.68	-60.4	-1,021.2	246.3	229.0	17.34	14.206		
5,000.0	4,928.3	4,989.3	4,869.8	16.8	20.7	5.68	-61.8	-1,044.5	251.7	234.0	17.69	14.223		
5,100.0	5,026.7	5,089.2	4,967.0	17.2	21.1	5.69	-63.2	-1,067.7	257.0	239.0	18.05	14.240		

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 Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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
S14-T2N-R68W (Grant Elmquist/Salisbury) - Grant Salisbury 2A-14H-C268 - Hz - Plan #1													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
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	5,125.0	5,189.1	5,064.1	17.5	21.6	5.69	-64.6	-1,090.9	262.4	244.0	18.41	14.255		
5,300.0	5,223.4	5,288.9	5,161.2	17.9	22.0	5.69	-66.0	-1,114.2	267.8	249.0	18.76	14.271		
5,400.0	5,321.7	5,388.8	5,258.3	18.3	22.5	5.69	-67.4	-1,137.4	273.1	254.0	19.12	14.285		
5,500.0	5,420.1	5,488.6	5,355.4	18.6	22.9	5.69	-68.7	-1,160.6	278.5	259.0	19.48	14.299		
5,600.0	5,518.4	5,588.5	5,452.5	19.0	23.4	5.70	-70.1	-1,183.8	283.9	264.0	19.83	14.313		
5,700.0	5,616.8	5,688.3	5,549.6	19.4	23.9	5.70	-71.5	-1,207.1	289.2	269.0	20.19	14.326		
5,800.0	5,715.1	5,788.2	5,646.7	19.7	24.3	5.70	-72.9	-1,230.3	294.6	274.0	20.55	14.338		
5,900.0	5,813.5	5,888.0	5,743.8	20.1	24.8	5.70	-74.3	-1,253.5	300.0	279.1	20.90	14.351		
6,000.0	5,911.9	5,987.9	5,840.9	20.5	25.2	5.70	-75.7	-1,276.8	305.3	284.1	21.26	14.362		
6,100.0	6,010.2	6,087.8	5,938.0	20.8	25.7	5.71	-77.1	-1,300.0	310.7	289.1	21.61	14.374		
6,200.0	6,108.6	6,187.6	6,035.1	21.2	26.1	5.71	-78.4	-1,323.2	316.1	294.1	21.97	14.385		
6,300.0	6,206.9	6,287.5	6,132.2	21.5	26.6	5.71	-79.8	-1,346.4	321.4	299.1	22.33	14.395		
6,400.0	6,305.3	6,387.3	6,229.3	21.9	27.0	5.71	-81.2	-1,369.7	326.8	304.1	22.68	14.406		
6,500.0	6,403.6	6,487.2	6,326.4	22.3	27.5	5.71	-82.6	-1,392.9	332.2	309.1	23.04	14.416		
6,600.0	6,502.0	6,587.0	6,423.6	22.6	27.9	5.71	-84.0	-1,416.1	337.5	314.1	23.40	14.425		
6,700.0	6,600.3	6,686.9	6,520.7	23.0	28.4	5.72	-85.4	-1,439.4	342.9	319.1	23.75	14.435		
6,800.0	6,698.7	6,786.7	6,617.7	23.4	28.8	-15.82	-86.8	-1,462.6	348.2	324.1	24.10	14.449		
6,900.0	6,795.9	6,885.2	6,713.5	23.7	29.3	-52.16	-88.1	-1,485.5	353.6	329.4	24.21	14.607		
7,000.0	6,889.2	6,979.5	6,805.2	24.0	29.7	-70.09	-89.4	-1,507.4	361.1	336.6	24.50	14.739		
7,100.0	6,975.8	7,070.7	6,893.9	24.3	30.1	-81.92	-90.2	-1,528.6	374.5	349.1	25.42	14.732		
7,200.0	7,053.1	7,179.2	6,988.5	24.7	30.6	-91.62	-77.1	-1,553.5	394.2	367.3	26.88	14.663		
7,300.0	7,118.6	7,303.6	7,113.1	25.0	31.1	-99.59	-37.5	-1,580.3	417.6	389.4	28.20	14.808		
7,400.0	7,170.4	7,449.4	7,233.2	25.5	31.6	-106.30	39.9	-1,607.9	441.6	412.7	28.95	15.253		
7,500.0	7,206.9	7,621.2	7,344.9	26.0	32.3	-111.62	167.0	-1,632.8	462.2	433.2	29.09	15.889		
7,600.0	7,227.0	7,818.1	7,421.7	26.5	33.1	-114.97	346.6	-1,648.7	474.7	445.8	28.92	16.415		
7,700.0	7,231.0	7,990.7	7,438.0	27.2	33.9	-115.77	517.9	-1,650.2	476.2	446.6	29.57	16.103		
7,800.0	7,231.0	8,090.7	7,438.0	27.9	34.5	-115.84	617.9	-1,648.8	474.9	443.1	31.76	14.951		
7,900.0	7,231.0	8,190.7	7,438.0	28.7	35.1	-115.92	717.8	-1,647.4	473.6	439.5	34.10	13.889		
8,000.0	7,231.0	8,290.7	7,438.0	29.6	35.8	-115.99	817.8	-1,646.0	472.4	435.8	36.56	12.921		
8,100.0	7,231.0	8,390.7	7,438.0	30.6	36.6	-116.07	917.8	-1,644.6	471.1	432.0	39.11	12.046		
8,200.0	7,231.0	8,490.7	7,438.0	31.6	37.5	-116.14	1,017.8	-1,643.2	469.9	428.1	41.74	11.257		
8,300.0	7,231.0	8,590.7	7,438.0	32.7	38.4	-116.22	1,117.8	-1,641.8	468.6	424.2	44.43	10.547		
8,400.0	7,231.0	8,690.7	7,438.0	33.9	39.4	-116.29	1,217.7	-1,640.4	467.4	420.2	47.18	9.907		
8,500.0	7,231.0	8,790.6	7,438.0	35.1	40.4	-116.37	1,317.7	-1,639.0	466.1	416.2	49.96	9.330		
8,600.0	7,231.0	8,890.6	7,438.0	36.3	41.4	-116.44	1,417.7	-1,637.6	464.9	412.1	52.78	8.808		
8,700.0	7,231.0	8,990.6	7,438.0	37.6	42.6	-116.52	1,517.7	-1,636.2	463.6	408.0	55.62	8.335		
8,800.0	7,231.0	9,090.6	7,438.0	38.9	43.7	-116.60	1,617.7	-1,634.8	462.4	403.9	58.49	7.905		
8,900.0	7,231.0	9,190.6	7,438.0	40.3	44.9	-116.68	1,717.7	-1,633.4	461.1	399.7	61.38	7.512		
9,000.0	7,231.0	9,290.6	7,438.0	41.7	46.2	-116.75	1,817.6	-1,632.0	459.9	395.6	64.29	7.153		
9,100.0	7,231.0	9,390.6	7,438.0	43.1	47.4	-116.83	1,917.6	-1,630.6	458.6	391.4	67.21	6.824		
9,200.0	7,231.0	9,490.6	7,438.0	44.5	48.7	-116.91	2,017.6	-1,629.2	457.4	387.3	70.14	6.522		
9,300.0	7,231.0	9,590.6	7,438.0	46.0	50.0	-116.99	2,117.6	-1,627.8	456.1	383.1	73.07	6.242		
9,400.0	7,231.0	9,690.6	7,438.0	47.5	51.4	-117.07	2,217.6	-1,626.4	454.9	378.9	76.02	5.984		
9,500.0	7,231.0	9,790.5	7,438.0	49.0	52.8	-117.15	2,317.5	-1,625.1	453.7	374.7	78.97	5.745		
9,600.0	7,231.0	9,890.5	7,438.0	50.5	54.2	-117.23	2,417.5	-1,623.7	452.4	370.5	81.93	5.522		
9,700.0	7,231.0	9,990.5	7,438.0	52.0	55.6	-117.31	2,517.5	-1,622.3	451.2	366.3	84.89	5.315		
9,800.0	7,231.0	10,090.5	7,438.0	53.6	57.0	-117.39	2,617.5	-1,620.9	449.9	362.1	87.85	5.122		
9,900.0	7,231.0	10,190.5	7,438.0	55.1	58.5	-117.48	2,717.5	-1,619.5	448.7	357.9	90.81	4.941		
10,000.0	7,231.0	10,290.5	7,438.0	56.7	60.0	-117.56	2,817.4	-1,618.1	447.5	353.7	93.78	4.771		
10,100.0	7,231.0	10,390.5	7,438.0	58.3	61.5	-117.64	2,917.4	-1,616.7	446.2	349.5	96.75	4.612		
10,200.0	7,231.0	10,490.5	7,438.0	59.9	63.0	-117.72	3,017.4	-1,615.3	445.0	345.3	99.71	4.463		
10,300.0	7,231.0	10,590.5	7,438.0	61.5	64.5	-117.81	3,117.4	-1,613.9	443.7	341.1	102.68	4.322		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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	
S14-T2N-R68W (Grant Elmquist/Salisbury) - Grant Salisbury 2A-14H-C268 - Hz - Plan #1													Offset Well Error:		0.0 ft
Survey Program: 0-MWD															
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	7,231.0	10,690.5	7,438.0	63.1	66.0	-117.89	3,217.4	-1,612.5	442.5	336.9	105.64	4.189			
10,500.0	7,231.0	10,790.5	7,438.0	64.7	67.5	-117.98	3,317.3	-1,611.1	441.3	332.7	108.60	4.063			
10,600.0	7,231.0	10,890.4	7,438.0	66.3	69.1	-118.06	3,417.3	-1,609.7	440.0	328.5	111.57	3.944			
10,700.0	7,231.0	10,990.4	7,438.0	68.0	70.6	-118.15	3,517.3	-1,608.3	438.8	324.3	114.52	3.832			
10,800.0	7,231.0	11,090.4	7,438.0	69.6	72.2	-118.23	3,617.3	-1,606.9	437.6	320.1	117.48	3.725			
10,900.0	7,231.0	11,190.4	7,438.0	71.2	73.8	-118.32	3,717.3	-1,605.5	436.4	315.9	120.43	3.623			
11,000.0	7,231.0	11,290.4	7,438.0	72.9	75.4	-118.41	3,817.2	-1,604.1	435.1	311.7	123.38	3.527			
11,100.0	7,231.0	11,390.4	7,438.0	74.5	77.0	-118.50	3,917.2	-1,602.7	433.9	307.6	126.33	3.435			
11,200.0	7,231.0	11,490.4	7,438.0	76.2	78.6	-118.58	4,017.2	-1,601.3	432.7	303.4	129.27	3.347			
11,300.0	7,231.0	11,590.4	7,438.0	77.8	80.2	-118.67	4,117.2	-1,599.9	431.4	299.2	132.21	3.263			
11,400.0	7,231.0	11,690.4	7,438.0	79.5	81.8	-118.76	4,217.2	-1,598.5	430.2	295.1	135.15	3.183			
11,500.0	7,231.0	11,790.4	7,438.0	81.2	83.4	-118.85	4,317.1	-1,597.1	429.0	290.9	138.08	3.107			
11,600.0	7,231.0	11,890.3	7,438.0	82.8	85.0	-118.94	4,417.1	-1,595.7	427.8	286.8	141.00	3.034			
11,700.0	7,231.0	11,990.3	7,438.0	84.5	86.6	-119.03	4,517.1	-1,594.3	426.6	282.6	143.93	2.964			
11,800.0	7,231.0	12,090.3	7,438.0	86.2	88.3	-119.12	4,617.1	-1,592.9	425.3	278.5	146.84	2.897			
11,900.0	7,231.0	12,190.3	7,438.0	87.9	89.9	-119.22	4,717.1	-1,591.5	424.1	274.4	149.75	2.832			
12,000.0	7,231.0	12,290.3	7,438.0	89.6	91.5	-119.31	4,817.0	-1,590.2	422.9	270.2	152.66	2.770			
12,100.0	7,231.0	12,390.3	7,438.0	91.3	93.2	-119.40	4,917.0	-1,588.8	421.7	266.1	155.56	2.711			
12,200.0	7,231.0	12,490.3	7,438.0	92.9	94.8	-119.49	5,017.0	-1,587.4	420.5	262.0	158.46	2.654			
12,300.0	7,231.0	12,590.3	7,438.0	94.6	96.5	-119.59	5,117.0	-1,586.0	419.3	257.9	161.35	2.598			
12,400.0	7,231.0	12,690.3	7,438.0	96.3	98.2	-119.68	5,217.0	-1,584.6	418.0	253.8	164.23	2.545			
12,500.0	7,231.0	12,790.3	7,438.0	98.0	99.8	-119.78	5,316.9	-1,583.2	416.8	249.7	167.11	2.494			
12,600.0	7,231.0	12,890.2	7,438.0	99.7	101.5	-119.87	5,416.9	-1,581.8	415.6	245.6	169.98	2.445			
12,700.0	7,231.0	12,990.2	7,438.0	101.4	103.1	-119.97	5,516.9	-1,580.4	414.4	241.6	172.85	2.398			
12,800.0	7,231.0	13,090.2	7,438.0	103.1	104.8	-120.07	5,616.9	-1,579.0	413.2	237.5	175.71	2.352			
12,900.0	7,231.0	13,190.2	7,438.0	104.8	106.5	-120.16	5,716.9	-1,577.6	412.0	233.4	178.56	2.307			
13,000.0	7,231.0	13,290.2	7,438.0	106.5	108.2	-120.26	5,816.9	-1,576.2	410.8	229.4	181.41	2.264			
13,100.0	7,231.0	13,390.2	7,438.0	108.2	109.8	-120.36	5,916.8	-1,574.8	409.6	225.3	184.25	2.223			
13,200.0	7,231.0	13,490.2	7,438.0	109.9	111.5	-120.46	6,016.8	-1,573.4	408.4	221.3	187.08	2.183			
13,300.0	7,231.0	13,590.2	7,438.0	111.7	113.2	-120.56	6,116.8	-1,572.0	407.2	217.3	189.90	2.144			
13,388.2	7,231.0	13,677.2	7,438.0	113.2	114.7	-120.65	6,203.8	-1,570.8	406.1	213.7	192.38	2.111 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 Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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 S14-T2N-R68W (Grant Elmquist/Salisbury) - Grant Salisbury 2C-14H-C268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance			Total	Separation	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis		Factor	
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	11.2	11.2					
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	11.2	11.2	10.9	0.30	36.823		
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	11.2	11.2	10.5	0.65	17.132		
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	11.2	11.2	10.2	1.00	11.162	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.7	-175.89	0.0	11.2	12.9	11.6	1.35	9.570		
500.0	499.8	500.4	500.4	0.9	0.9	-176.57	-0.2	9.4	16.4	14.7	1.70	9.657		
600.0	599.5	601.0	600.8	1.1	1.0	-176.68	-0.8	4.2	19.9	17.8	2.05	9.714		
700.0	698.7	701.7	701.1	1.3	1.3	-176.49	-1.8	-4.6	23.3	20.9	2.39	9.752		
800.0	797.5	802.3	801.0	1.7	1.5	-176.13	-3.2	-16.7	26.9	24.1	2.74	9.811		
900.0	895.8	902.2	900.0	2.0	1.8	-175.97	-4.7	-29.8	31.8	28.7	3.09	10.278		
1,000.0	994.2	1,002.1	999.0	2.3	2.0	-175.86	-6.2	-42.9	36.7	33.3	3.44	10.665		
1,100.0	1,092.5	1,101.9	1,098.0	2.7	2.3	-175.78	-7.7	-56.0	41.7	37.9	3.80	10.980		
1,200.0	1,190.9	1,201.8	1,197.0	3.0	2.6	-175.72	-9.2	-69.1	46.6	42.5	4.15	11.241		
1,300.0	1,289.2	1,301.7	1,296.0	3.4	2.9	-175.66	-10.7	-82.2	51.6	47.1	4.50	11.461		
1,400.0	1,387.6	1,401.6	1,395.0	3.7	3.1	-175.62	-12.2	-95.3	56.6	51.7	4.86	11.648		
1,500.0	1,486.0	1,501.4	1,494.0	4.1	3.4	-175.59	-13.8	-108.4	61.5	56.3	5.21	11.810		
1,600.0	1,584.3	1,601.3	1,593.0	4.4	3.7	-175.56	-15.3	-121.5	66.5	60.9	5.56	11.952		
1,700.0	1,682.7	1,701.2	1,692.0	4.8	4.0	-175.53	-16.8	-134.6	71.4	65.5	5.92	12.076		
1,800.0	1,781.0	1,801.1	1,791.0	5.2	4.3	-175.51	-18.3	-147.7	76.4	70.1	6.27	12.186		
1,900.0	1,879.4	1,900.9	1,890.0	5.5	4.6	-175.49	-19.8	-160.8	81.4	74.7	6.62	12.285		
2,000.0	1,977.7	2,000.8	1,989.0	5.9	4.8	-175.47	-21.3	-173.8	86.3	79.4	6.98	12.373		
2,100.0	2,076.1	2,100.7	2,088.0	6.3	5.1	-175.45	-22.8	-186.9	91.3	84.0	7.33	12.453		
2,200.0	2,174.4	2,200.6	2,187.0	6.6	5.4	-175.44	-24.3	-200.0	96.3	88.6	7.68	12.526		
2,300.0	2,272.8	2,300.5	2,286.1	7.0	5.7	-175.43	-25.8	-213.1	101.2	93.2	8.04	12.592		
2,400.0	2,371.1	2,400.3	2,385.1	7.3	6.0	-175.42	-27.3	-226.2	106.2	97.8	8.39	12.652		
2,500.0	2,469.5	2,500.2	2,484.1	7.7	6.3	-175.41	-28.8	-239.3	111.1	102.4	8.75	12.708		
2,600.0	2,567.8	2,600.1	2,583.1	8.1	6.6	-175.40	-30.3	-252.4	116.1	107.0	9.10	12.759		
2,700.0	2,666.2	2,700.0	2,682.1	8.4	6.9	-175.39	-31.8	-265.5	121.1	111.6	9.45	12.807		
2,800.0	2,764.5	2,799.8	2,781.1	8.8	7.2	-175.38	-33.3	-278.6	126.0	116.2	9.81	12.851		
2,900.0	2,862.9	2,899.7	2,880.1	9.2	7.4	-175.37	-34.8	-291.7	131.0	120.8	10.16	12.891		
3,000.0	2,961.3	2,999.6	2,979.1	9.5	7.7	-175.36	-36.3	-304.8	135.9	125.4	10.51	12.930		
3,100.0	3,059.6	3,099.5	3,078.1	9.9	8.0	-175.36	-37.8	-317.9	140.9	130.0	10.87	12.965		
3,200.0	3,158.0	3,199.3	3,177.1	10.2	8.3	-175.35	-39.3	-330.9	145.9	134.6	11.22	12.999		
3,300.0	3,256.3	3,299.2	3,276.1	10.6	8.6	-175.35	-40.9	-344.0	150.8	139.3	11.58	13.030		
3,400.0	3,354.7	3,399.1	3,375.1	11.0	8.9	-175.34	-42.4	-357.1	155.8	143.9	11.93	13.060		
3,500.0	3,453.0	3,499.0	3,474.1	11.3	9.2	-175.34	-43.9	-370.2	160.8	148.5	12.28	13.087		
3,600.0	3,551.4	3,598.9	3,573.1	11.7	9.5	-175.33	-45.4	-383.3	165.7	153.1	12.64	13.114		
3,700.0	3,649.7	3,698.7	3,672.1	12.1	9.8	-175.33	-46.9	-396.4	170.7	157.7	12.99	13.138		
3,800.0	3,748.1	3,798.6	3,771.1	12.4	10.0	-175.32	-48.4	-409.5	175.6	162.3	13.34	13.162		
3,900.0	3,846.4	3,898.5	3,870.1	12.8	10.3	-175.32	-49.9	-422.6	180.6	166.9	13.70	13.184		
4,000.0	3,944.8	3,998.4	3,969.1	13.2	10.6	-175.32	-51.4	-435.7	185.6	171.5	14.05	13.205		
4,100.0	4,043.1	4,098.2	4,068.1	13.5	10.9	-175.31	-52.9	-448.8	190.5	176.1	14.41	13.225		
4,200.0	4,141.5	4,198.1	4,167.1	13.9	11.2	-175.31	-54.4	-461.9	195.5	180.7	14.76	13.244		
4,300.0	4,239.8	4,298.0	4,266.1	14.3	11.5	-175.31	-55.9	-475.0	200.4	185.3	15.11	13.263		
4,400.0	4,338.2	4,397.9	4,365.1	14.6	11.8	-175.30	-57.4	-488.0	205.4	189.9	15.47	13.280		
4,500.0	4,436.6	4,497.7	4,464.1	15.0	12.1	-175.30	-58.9	-501.1	210.4	194.6	15.82	13.297		
4,600.0	4,534.9	4,597.6	4,563.1	15.3	12.4	-175.30	-60.4	-514.2	215.3	199.2	16.18	13.313		
4,700.0	4,633.3	4,697.5	4,662.1	15.7	12.6	-175.29	-61.9	-527.3	220.3	203.8	16.53	13.328		
4,800.0	4,731.6	4,797.4	4,761.1	16.1	12.9	-175.29	-63.4	-540.4	225.3	208.4	16.88	13.342		
4,900.0	4,830.0	4,897.3	4,860.1	16.4	13.2	-175.29	-64.9	-553.5	230.2	213.0	17.24	13.356		
5,000.0	4,928.3	4,997.1	4,959.1	16.8	13.5	-175.29	-66.4	-566.6	235.2	217.6	17.59	13.370		
5,100.0	5,026.7	5,097.0	5,058.2	17.2	13.8	-175.28	-68.0	-579.7	240.1	222.2	17.94	13.383		

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 Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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 S14-T2N-R68W (Grant Elmquist/Salisbury) - Grant Salisbury 2C-14H-C268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,200.0	5,125.0	5,196.9	5,157.2	17.5	14.1	-175.28	-69.5	-592.8	245.1	226.8	18.30	13.395		
5,300.0	5,223.4	5,296.8	5,256.2	17.9	14.4	-175.28	-71.0	-605.9	250.1	231.4	18.65	13.407		
5,400.0	5,321.7	5,396.6	5,355.2	18.3	14.7	-175.28	-72.5	-619.0	255.0	236.0	19.01	13.418		
5,500.0	5,420.1	5,496.5	5,454.2	18.6	15.0	-175.28	-74.0	-632.1	260.0	240.6	19.36	13.429		
5,600.0	5,518.4	5,596.4	5,553.2	19.0	15.3	-175.28	-75.5	-645.1	264.9	245.2	19.71	13.440		
5,700.0	5,616.8	5,696.3	5,652.2	19.4	15.5	-175.27	-77.0	-658.2	269.9	249.8	20.07	13.450		
5,800.0	5,715.1	5,796.1	5,751.2	19.7	15.8	-175.27	-78.5	-671.3	274.9	254.5	20.42	13.460		
5,900.0	5,813.5	5,896.0	5,850.2	20.1	16.1	-175.27	-80.0	-684.4	279.8	259.1	20.78	13.470		
6,000.0	5,911.9	5,995.9	5,949.2	20.5	16.4	-175.27	-81.5	-697.5	284.8	263.7	21.13	13.479		
6,100.0	6,010.2	6,095.8	6,048.2	20.8	16.7	-175.27	-83.0	-710.6	289.8	268.3	21.48	13.488		
6,200.0	6,108.6	6,195.7	6,147.2	21.2	17.0	-175.27	-84.5	-723.7	294.7	272.9	21.84	13.497		
6,300.0	6,206.9	6,295.5	6,246.2	21.5	17.3	-175.26	-86.0	-736.8	299.7	277.5	22.19	13.505		
6,400.0	6,305.3	6,395.4	6,345.2	21.9	17.6	-175.26	-87.5	-749.9	304.6	282.1	22.54	13.513		
6,500.0	6,403.6	6,495.3	6,444.2	22.3	17.9	-175.26	-89.0	-763.0	309.6	286.7	22.90	13.521		
6,600.0	6,502.0	6,595.2	6,543.2	22.6	18.2	-175.26	-90.5	-776.1	314.6	291.3	23.25	13.529		
6,700.0	6,600.3	6,695.0	6,642.2	23.0	18.4	-175.26	-92.0	-789.2	319.5	295.9	23.61	13.536		
6,800.0	6,698.7	6,794.9	6,741.2	23.4	18.7	162.90	-91.4	-802.2	324.5	300.6	23.92	13.567		
6,900.0	6,795.9	6,894.5	6,838.6	23.7	19.0	127.77	-75.8	-815.1	329.4	305.2	24.16	13.637		
7,000.0	6,889.2	6,993.9	6,937.7	24.0	19.2	113.25	-43.5	-827.4	334.1	309.7	24.44	13.673		
7,100.0	6,975.8	7,093.1	7,037.6	24.3	19.5	106.16	4.4	-838.8	338.5	313.7	24.85	13.623		
7,200.0	7,053.1	7,192.2	7,094.0	24.7	19.8	102.07	66.4	-848.9	342.4	316.9	25.48	13.439		
7,300.0	7,118.6	7,291.0	7,158.6	25.0	20.1	99.51	140.7	-857.4	345.7	319.4	26.37	13.108		
7,400.0	7,170.4	7,389.8	7,209.5	25.5	20.6	97.85	224.9	-864.2	348.4	320.8	27.56	12.641		
7,500.0	7,206.9	7,488.5	7,245.4	26.0	21.1	96.83	316.5	-868.9	350.2	321.2	29.02	12.069		
7,600.0	7,227.0	7,587.1	7,265.1	26.5	21.8	96.31	413.0	-871.5	351.2	320.5	30.72	11.435		
7,700.0	7,231.0	7,686.1	7,269.0	27.2	22.6	96.21	511.9	-872.0	351.4	318.7	32.69	10.750		
7,800.0	7,231.0	7,786.1	7,269.0	27.9	23.5	96.21	611.9	-872.0	351.4	316.4	35.06	10.025		
7,900.0	7,231.0	7,886.1	7,269.0	28.7	24.4	96.21	711.9	-872.0	351.4	313.8	37.59	9.348		
8,000.0	7,231.0	7,986.1	7,269.0	29.6	25.5	96.21	811.9	-872.0	351.4	311.2	40.27	8.726		
8,100.0	7,231.0	8,086.1	7,269.0	30.6	26.6	96.21	911.9	-872.0	351.4	308.4	43.07	8.160		
8,200.0	7,231.0	8,186.1	7,269.0	31.6	27.8	96.21	1,011.9	-872.0	351.4	305.5	45.96	7.647		
8,300.0	7,231.0	8,286.1	7,269.0	32.7	29.0	96.21	1,111.9	-872.0	351.4	302.5	48.93	7.183		
8,400.0	7,231.0	8,386.1	7,269.0	33.9	30.3	96.21	1,211.9	-872.0	351.4	299.5	51.96	6.764		
8,500.0	7,231.0	8,486.1	7,269.0	35.1	31.7	96.21	1,311.9	-872.0	351.4	296.4	55.05	6.384		
8,600.0	7,231.0	8,586.1	7,269.0	36.3	33.1	96.21	1,411.9	-872.0	351.4	293.3	58.18	6.041		
8,700.0	7,231.0	8,686.1	7,269.0	37.6	34.5	96.21	1,511.9	-872.0	351.4	290.1	61.35	5.728		
8,800.0	7,231.0	8,786.1	7,269.0	38.9	35.9	96.21	1,611.9	-872.0	351.4	286.9	64.55	5.444		
8,900.0	7,231.0	8,886.1	7,269.0	40.3	37.4	96.21	1,711.9	-872.0	351.4	283.7	67.78	5.185		
9,000.0	7,231.0	8,986.1	7,269.0	41.7	38.9	96.21	1,811.9	-872.0	351.4	280.4	71.04	4.947		
9,100.0	7,231.0	9,086.1	7,269.0	43.1	40.4	96.21	1,911.9	-872.0	351.4	277.1	74.32	4.729		
9,200.0	7,231.0	9,186.1	7,269.0	44.5	42.0	96.21	2,011.9	-872.0	351.4	273.8	77.61	4.528		
9,300.0	7,231.0	9,286.1	7,269.0	46.0	43.5	96.21	2,111.9	-872.0	351.4	270.5	80.92	4.343		
9,400.0	7,231.0	9,386.1	7,269.0	47.5	45.1	96.21	2,211.9	-872.0	351.4	267.2	84.25	4.171		
9,500.0	7,231.0	9,486.1	7,269.0	49.0	46.7	96.21	2,311.9	-872.0	351.4	263.8	87.59	4.012		
9,600.0	7,231.0	9,586.1	7,269.0	50.5	48.2	96.21	2,411.9	-872.0	351.4	260.5	90.94	3.865		
9,700.0	7,231.0	9,686.1	7,269.0	52.0	49.8	96.21	2,511.9	-872.0	351.4	257.1	94.30	3.727		
9,800.0	7,231.0	9,786.1	7,269.0	53.6	51.5	96.21	2,611.9	-872.0	351.4	253.8	97.66	3.598		
9,900.0	7,231.0	9,886.1	7,269.0	55.1	53.1	96.21	2,711.9	-872.0	351.4	250.4	101.04	3.478		
10,000.0	7,231.0	9,986.1	7,269.0	56.7	54.7	96.21	2,811.9	-872.0	351.4	247.0	104.42	3.365		
10,100.0	7,231.0	10,086.1	7,269.0	58.3	56.4	96.21	2,911.9	-872.0	351.4	243.6	107.82	3.260		
10,200.0	7,231.0	10,186.1	7,269.0	59.9	58.0	96.21	3,011.9	-872.0	351.4	240.2	111.21	3.160		
10,300.0	7,231.0	10,286.1	7,269.0	61.5	59.6	96.21	3,111.9	-872.0	351.4	236.8	114.61	3.066		

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 Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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			
10,400.0	7,231.0	10,386.1	7,269.0	63.1	61.3	96.21	3,211.9	-872.0	351.4	233.4	118.02	2.978			
10,500.0	7,231.0	10,486.1	7,269.0	64.7	63.0	96.21	3,311.9	-872.0	351.4	230.0	121.43	2.894			
10,600.0	7,231.0	10,586.1	7,269.0	66.3	64.6	96.21	3,411.9	-872.0	351.4	226.6	124.85	2.815			
10,700.0	7,231.0	10,686.1	7,269.0	68.0	66.3	96.21	3,511.9	-872.0	351.4	223.2	128.27	2.740			
10,800.0	7,231.0	10,786.1	7,269.0	69.6	68.0	96.21	3,611.9	-872.0	351.4	219.7	131.69	2.669			
10,900.0	7,231.0	10,886.1	7,269.0	71.2	69.7	96.21	3,711.9	-872.0	351.4	216.3	135.12	2.601			
11,000.0	7,231.0	10,986.1	7,269.0	72.9	71.3	96.21	3,811.9	-872.0	351.4	212.9	138.55	2.537			
11,100.0	7,231.0	11,086.1	7,269.0	74.5	73.0	96.21	3,911.9	-872.0	351.4	209.5	141.98	2.475			
11,200.0	7,231.0	11,186.1	7,269.0	76.2	74.7	96.21	4,011.9	-872.0	351.4	206.0	145.41	2.417			
11,300.0	7,231.0	11,286.1	7,269.0	77.8	76.4	96.21	4,111.9	-872.0	351.4	202.6	148.85	2.361			
11,400.0	7,231.0	11,386.1	7,269.0	79.5	78.1	96.21	4,211.9	-872.0	351.4	199.1	152.29	2.308			
11,500.0	7,231.0	11,486.1	7,269.0	81.2	79.8	96.21	4,311.9	-872.0	351.4	195.7	155.73	2.257			
11,600.0	7,231.0	11,586.1	7,269.0	82.8	81.5	96.21	4,411.9	-872.0	351.4	192.3	159.18	2.208			
11,700.0	7,231.0	11,686.1	7,269.0	84.5	83.2	96.21	4,511.9	-872.0	351.4	188.8	162.62	2.161			
11,800.0	7,231.0	11,786.1	7,269.0	86.2	84.9	96.21	4,611.9	-872.0	351.4	185.4	166.07	2.116			
11,900.0	7,231.0	11,886.1	7,269.0	87.9	86.6	96.21	4,711.9	-872.0	351.4	181.9	169.52	2.073			
12,000.0	7,231.0	11,986.1	7,269.0	89.6	88.3	96.21	4,811.9	-872.0	351.4	178.5	172.97	2.032			
12,100.0	7,231.0	12,086.1	7,269.0	91.3	90.0	96.21	4,911.9	-872.0	351.4	175.0	176.42	1.992			
12,200.0	7,231.0	12,186.1	7,269.0	92.9	91.7	96.21	5,011.9	-872.0	351.4	171.6	179.88	1.954			
12,300.0	7,231.0	12,286.1	7,269.0	94.6	93.5	96.21	5,111.9	-872.0	351.4	168.1	183.33	1.917			
12,400.0	7,231.0	12,386.1	7,269.0	96.3	95.2	96.21	5,211.9	-872.0	351.4	164.6	186.79	1.881			
12,500.0	7,231.0	12,486.1	7,269.0	98.0	96.9	96.21	5,311.9	-872.0	351.4	161.2	190.24	1.847			
12,600.0	7,231.0	12,586.1	7,269.0	99.7	98.6	96.21	5,411.9	-872.0	351.4	157.7	193.70	1.814			
12,700.0	7,231.0	12,686.1	7,269.0	101.4	100.3	96.21	5,511.9	-872.0	351.4	154.3	197.16	1.782			
12,800.0	7,231.0	12,786.1	7,269.0	103.1	102.0	96.21	5,611.9	-872.0	351.4	150.8	200.62	1.752			
12,900.0	7,231.0	12,886.1	7,269.0	104.8	103.8	96.21	5,711.9	-872.0	351.4	147.4	204.08	1.722			
13,000.0	7,231.0	12,986.1	7,269.0	106.5	105.5	96.21	5,811.9	-872.0	351.4	143.9	207.55	1.693			
13,100.0	7,231.0	13,086.1	7,269.0	108.2	107.2	96.21	5,911.9	-872.0	351.4	140.4	211.01	1.665			
13,200.0	7,231.0	13,186.1	7,269.0	109.9	108.9	96.21	6,011.9	-872.0	351.4	137.0	214.47	1.639			
13,300.0	7,231.0	13,286.1	7,269.0	111.7	110.7	96.21	6,111.9	-872.0	351.4	133.5	217.94	1.613			
13,359.2	7,231.0	13,345.3	7,269.0	112.7	111.7	96.21	6,171.1	-872.0	351.4	131.4	219.99	1.598			
13,388.2	7,231.0	13,374.3	7,269.0	113.2	112.2	96.21	6,200.1	-872.0	351.4	130.4	220.99	1.590 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 Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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 S14-T2N-R68W (Grant Elmquist/Salisbury) - Grant Salisbury 2D-14H-C268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	19.6	19.6					
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	19.6	19.6	19.3	0.30	64.441		
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	19.6	19.6	18.9	0.65	29.980		
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	19.6	19.6	18.6	1.00	19.534 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-175.64	0.0	19.6	21.3	20.0	1.35	15.781		
500.0	499.8	500.7	500.7	0.9	0.9	-175.77	-0.4	17.8	24.8	23.1	1.70	14.599		
600.0	599.5	601.6	601.4	1.1	1.0	-175.02	-1.4	12.6	28.3	26.3	2.05	13.835 SF		
700.0	698.7	701.5	701.1	1.3	1.2	-174.27	-2.9	5.5	33.3	30.9	2.39	13.924		
800.0	797.5	801.2	800.5	1.7	1.4	-174.22	-4.3	-1.7	41.8	39.1	2.74	15.262		
900.0	895.8	900.6	899.6	2.0	1.7	-174.46	-5.8	-8.8	52.6	49.6	3.09	17.040		
1,000.0	994.2	1,000.0	998.7	2.3	1.9	-174.63	-7.3	-15.9	63.5	60.1	3.44	18.468		
1,100.0	1,092.5	1,099.4	1,097.9	2.7	2.1	-174.75	-8.7	-23.1	74.5	70.7	3.79	19.631		
1,200.0	1,190.9	1,198.8	1,197.0	3.0	2.3	-174.84	-10.2	-30.2	85.4	81.2	4.14	20.597		
1,300.0	1,289.2	1,298.2	1,296.1	3.4	2.5	-174.91	-11.6	-37.3	96.3	91.8	4.50	21.412		
1,400.0	1,387.6	1,397.6	1,395.3	3.7	2.7	-174.96	-13.1	-44.5	107.2	102.3	4.85	22.109		
1,500.0	1,486.0	1,497.0	1,494.4	4.1	2.9	-175.01	-14.5	-51.6	118.1	112.9	5.20	22.711		
1,600.0	1,584.3	1,596.4	1,593.6	4.4	3.1	-175.04	-16.0	-58.7	129.0	123.4	5.55	23.237		
1,700.0	1,682.7	1,695.8	1,692.7	4.8	3.3	-175.08	-17.5	-65.8	139.9	134.0	5.90	23.700		
1,800.0	1,781.0	1,795.2	1,791.8	5.2	3.6	-175.10	-18.9	-73.0	150.8	144.6	6.26	24.111		
1,900.0	1,879.4	1,894.6	1,891.0	5.5	3.8	-175.13	-20.4	-80.1	161.7	155.1	6.61	24.479		
2,000.0	1,977.7	1,994.0	1,990.1	5.9	4.0	-175.15	-21.8	-87.2	172.6	165.7	6.96	24.809		
2,100.0	2,076.1	2,093.4	2,089.2	6.3	4.2	-175.16	-23.3	-94.4	183.5	176.2	7.31	25.108		
2,200.0	2,174.4	2,192.8	2,188.4	6.6	4.4	-175.18	-24.7	-101.5	194.5	186.8	7.66	25.379		
2,300.0	2,272.8	2,292.2	2,287.5	7.0	4.6	-175.19	-26.2	-108.6	205.4	197.3	8.01	25.626		
2,400.0	2,371.1	2,391.6	2,386.6	7.3	4.8	-175.21	-27.6	-115.8	216.3	207.9	8.37	25.852		
2,500.0	2,469.5	2,491.0	2,485.8	7.7	5.1	-175.22	-29.1	-122.9	227.2	218.5	8.72	26.061		
2,600.0	2,567.8	2,590.4	2,584.9	8.1	5.3	-175.23	-30.6	-130.0	238.1	229.0	9.07	26.253		
2,700.0	2,666.2	2,689.8	2,684.1	8.4	5.5	-175.24	-32.0	-137.1	249.0	239.6	9.42	26.430		
2,800.0	2,764.5	2,789.2	2,783.2	8.8	5.7	-175.25	-33.5	-144.3	259.9	250.1	9.77	26.595		
2,900.0	2,862.9	2,888.6	2,882.3	9.2	5.9	-175.25	-34.9	-151.4	270.8	260.7	10.12	26.749		
3,000.0	2,961.3	2,988.0	2,981.5	9.5	6.1	-175.26	-36.4	-158.5	281.7	271.2	10.48	26.892		
3,100.0	3,059.6	3,087.4	3,080.6	9.9	6.3	-175.27	-37.8	-165.7	292.6	281.8	10.83	27.026		
3,200.0	3,158.0	3,186.8	3,179.7	10.2	6.6	-175.27	-39.3	-172.8	303.5	292.4	11.18	27.151		
3,300.0	3,256.3	3,286.2	3,278.9	10.6	6.8	-175.28	-40.8	-179.9	314.5	302.9	11.53	27.269		
3,400.0	3,354.7	3,385.6	3,378.0	11.0	7.0	-175.29	-42.2	-187.1	325.4	313.5	11.88	27.380		
3,500.0	3,453.0	3,485.0	3,477.1	11.3	7.2	-175.29	-43.7	-194.2	336.3	324.0	12.23	27.484		
3,600.0	3,551.4	3,584.5	3,576.3	11.7	7.4	-175.30	-45.1	-201.3	347.2	334.6	12.59	27.583		
3,700.0	3,649.7	3,683.9	3,675.4	12.1	7.6	-175.30	-46.6	-208.4	358.1	345.1	12.94	27.676		
3,800.0	3,748.1	3,783.3	3,774.6	12.4	7.8	-175.30	-48.0	-215.6	369.0	355.7	13.29	27.765		
3,900.0	3,846.4	3,882.7	3,873.7	12.8	8.1	-175.31	-49.5	-222.7	379.9	366.3	13.64	27.848		
4,000.0	3,944.8	3,982.1	3,972.8	13.2	8.3	-175.31	-51.0	-229.8	390.8	376.8	13.99	27.928		
4,100.0	4,043.1	4,081.5	4,072.0	13.5	8.5	-175.32	-52.4	-237.0	401.7	387.4	14.35	28.003		
4,200.0	4,141.5	4,180.9	4,171.1	13.9	8.7	-175.32	-53.9	-244.1	412.6	397.9	14.70	28.076		
4,300.0	4,239.8	4,280.3	4,270.2	14.3	8.9	-175.32	-55.3	-251.2	423.5	408.5	15.05	28.144		
4,400.0	4,338.2	4,379.7	4,369.4	14.6	9.1	-175.33	-56.8	-258.4	434.4	419.0	15.40	28.210		
4,500.0	4,436.6	4,479.1	4,468.5	15.0	9.3	-175.33	-58.2	-265.5	445.4	429.6	15.75	28.272		
4,600.0	4,534.9	4,578.5	4,567.6	15.3	9.6	-175.33	-59.7	-272.6	456.3	440.2	16.10	28.332		
4,700.0	4,633.3	4,677.9	4,666.8	15.7	9.8	-175.33	-61.2	-279.7	467.2	450.7	16.46	28.389		
4,800.0	4,731.6	4,777.3	4,765.9	16.1	10.0	-175.34	-62.6	-286.9	478.1	461.3	16.81	28.444		
4,900.0	4,830.0	4,876.7	4,865.1	16.4	10.2	-175.34	-64.1	-294.0	489.0	471.8	17.16	28.497		
5,000.0	4,928.3	4,976.1	4,964.2	16.8	10.4	-175.34	-65.5	-301.1	499.9	482.4	17.51	28.548		

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 Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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	90.00	0.0	30.8	30.8						
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	30.8	30.8	30.4	0.30	101.264			
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	30.8	30.8	30.1	0.65	47.112			
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	30.8	30.8	29.8	1.00	30.697 CC, ES			
400.0	400.0	400.0	400.0	0.7	0.7	-175.50	0.0	30.8	32.5	31.1	1.35	24.062			
500.0	499.8	499.8	499.8	0.9	0.8	-176.12	0.0	30.8	37.7	36.0	1.70	22.217 SF			
600.0	599.5	599.5	599.5	1.1	1.0	-176.84	0.0	30.8	46.4	44.4	2.04	22.724			
700.0	698.7	698.7	698.7	1.3	1.2	-177.48	0.0	30.8	58.6	56.2	2.38	24.569			
800.0	797.5	797.5	797.5	1.7	1.4	-178.00	0.0	30.8	74.2	71.5	2.72	27.256			
900.0	895.8	895.8	895.8	2.0	1.5	-178.39	0.0	30.8	92.2	89.1	3.07	30.068			
1,000.0	994.2	994.2	994.2	2.3	1.7	-178.65	0.0	30.8	110.3	106.9	3.41	32.318			
1,100.0	1,092.5	1,092.5	1,092.5	2.7	1.9	-178.84	0.0	30.8	128.3	124.6	3.76	34.156			
1,200.0	1,190.9	1,190.9	1,190.9	3.0	2.1	-178.99	0.0	30.8	146.4	142.3	4.10	35.685			
1,300.0	1,289.2	1,289.2	1,289.2	3.4	2.2	-179.10	0.0	30.8	164.5	160.0	4.45	36.978			
1,400.0	1,387.6	1,387.6	1,387.6	3.7	2.4	-179.19	0.0	30.8	182.6	177.8	4.79	38.084			
1,500.0	1,486.0	1,486.0	1,486.0	4.1	2.6	-179.26	0.0	30.8	200.6	195.5	5.14	39.042			
1,600.0	1,584.3	1,584.3	1,584.3	4.4	2.7	-179.32	0.0	30.8	218.7	213.2	5.48	39.880			
1,700.0	1,682.7	1,682.7	1,682.7	4.8	2.9	-179.37	0.0	30.8	236.8	230.9	5.83	40.619			
1,800.0	1,781.0	1,781.0	1,781.0	5.2	3.1	-179.42	0.0	30.8	254.8	248.7	6.17	41.275			
1,900.0	1,879.4	1,879.4	1,879.4	5.5	3.3	-179.46	0.0	30.8	272.9	266.4	6.52	41.862			
2,000.0	1,977.7	1,977.7	1,977.7	5.9	3.4	-179.49	0.0	30.8	291.0	284.1	6.86	42.390			
2,100.0	2,076.1	2,076.1	2,076.1	6.3	3.6	-179.52	0.0	30.8	309.1	301.8	7.21	42.868			
2,200.0	2,174.4	2,174.4	2,174.4	6.6	3.8	-179.55	0.0	30.8	327.1	319.6	7.55	43.302			
2,300.0	2,272.8	2,272.8	2,272.8	7.0	3.9	-179.57	0.0	30.8	345.2	337.3	7.90	43.698			
2,400.0	2,371.1	2,371.1	2,371.1	7.3	4.1	-179.59	0.0	30.8	363.3	355.0	8.24	44.061			
2,500.0	2,469.5	2,469.5	2,469.5	7.7	4.3	-179.61	0.0	30.8	381.3	372.8	8.59	44.395			
2,600.0	2,567.8	2,567.8	2,567.8	8.1	4.5	-179.63	0.0	30.8	399.4	390.5	8.93	44.703			
2,700.0	2,666.2	2,666.2	2,666.2	8.4	4.6	-179.64	0.0	30.8	417.5	408.2	9.28	44.988			
2,800.0	2,764.5	2,764.5	2,764.5	8.8	4.8	-179.66	0.0	30.8	435.6	425.9	9.62	45.253			
2,900.0	2,862.9	2,862.9	2,862.9	9.2	5.0	-179.67	0.0	30.8	453.6	443.7	9.97	45.499			
3,000.0	2,961.3	2,961.3	2,961.3	9.5	5.1	-179.69	0.0	30.8	471.7	461.4	10.32	45.729			
3,100.0	3,059.6	3,059.6	3,059.6	9.9	5.3	-179.70	0.0	30.8	489.8	479.1	10.66	45.944			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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
S14-T2N-R68W (Grant Elmquist/Salisbury) - Grant Salisbury 2F-14H-C268 - Hz - Plan #1													Offset Well Error:	0.0 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	39.1	39.1					
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	39.1	39.1	38.8	0.30	128.881		
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	39.1	39.1	38.5	0.65	59.961		
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	39.1	39.1	38.1	1.00	39.069	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.7	-175.45	0.0	39.1	40.9	39.5	1.35	30.273		
500.0	499.8	499.8	499.8	0.9	0.8	-175.96	0.0	39.1	46.1	44.4	1.70	27.157		
600.0	599.5	599.5	599.5	1.1	1.0	-176.59	0.0	39.1	54.8	52.8	2.04	26.829	SF	
700.0	698.7	696.6	696.6	1.3	1.2	-176.67	-0.6	40.7	68.5	66.1	2.38	28.772		
800.0	797.5	793.8	793.7	1.7	1.4	-176.18	-2.0	44.7	88.2	85.4	2.72	32.439		
900.0	895.8	891.3	891.0	2.0	1.5	-175.93	-3.6	48.9	110.4	107.3	3.06	36.053		
1,000.0	994.2	988.8	988.4	2.3	1.7	-175.77	-5.2	53.2	132.6	129.2	3.41	38.934		
1,100.0	1,092.5	1,086.2	1,085.8	2.7	1.9	-175.65	-6.7	57.4	154.9	151.2	3.75	41.281		
1,200.0	1,190.9	1,183.7	1,183.2	3.0	2.1	-175.57	-8.3	61.7	177.2	173.1	4.10	43.231		
1,300.0	1,289.2	1,281.2	1,280.6	3.4	2.3	-175.50	-9.8	65.9	199.5	195.0	4.44	44.876		
1,400.0	1,387.6	1,378.7	1,378.0	3.7	2.5	-175.44	-11.4	70.2	221.7	216.9	4.79	46.282		
1,500.0	1,486.0	1,476.2	1,475.3	4.1	2.6	-175.40	-13.0	74.4	244.0	238.9	5.14	47.498		
1,600.0	1,584.3	1,573.7	1,572.7	4.4	2.8	-175.36	-14.5	78.7	266.3	260.8	5.48	48.560		
1,700.0	1,682.7	1,671.2	1,670.1	4.8	3.0	-175.33	-16.1	82.9	288.6	282.7	5.83	49.495		
1,800.0	1,781.0	1,768.6	1,767.5	5.2	3.2	-175.31	-17.6	87.1	310.8	304.7	6.18	50.325		
1,900.0	1,879.4	1,866.1	1,864.9	5.5	3.4	-175.28	-19.2	91.4	333.1	326.6	6.52	51.066		
2,000.0	1,977.7	1,963.6	1,962.2	5.9	3.6	-175.26	-20.8	95.6	355.4	348.5	6.87	51.733		
2,100.0	2,076.1	2,061.1	2,059.6	6.3	3.8	-175.25	-22.3	99.9	377.7	370.5	7.22	52.335		
2,200.0	2,174.4	2,158.6	2,157.0	6.6	3.9	-175.23	-23.9	104.1	400.0	392.4	7.56	52.882		
2,300.0	2,272.8	2,256.1	2,254.4	7.0	4.1	-175.22	-25.4	108.4	422.2	414.3	7.91	53.381		
2,400.0	2,371.1	2,353.6	2,351.8	7.3	4.3	-175.20	-27.0	112.6	444.5	436.3	8.26	53.838		
2,500.0	2,469.5	2,451.1	2,449.2	7.7	4.5	-175.19	-28.6	116.9	466.8	458.2	8.60	54.258		
2,600.0	2,567.8	2,548.5	2,546.5	8.1	4.7	-175.18	-30.1	121.1	489.1	480.1	8.95	54.645		

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 Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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: 8028-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	-52.78	166.5	-219.2	275.3						
100.0	100.0	93.0	93.0	0.2	0.2	-52.78	166.5	-219.2	275.2	274.9	0.31	875.553			
200.0	200.0	193.0	193.0	0.3	0.3	-52.78	166.5	-219.2	275.2	274.6	0.66	414.874			
300.0	300.0	293.0	293.0	0.5	0.5	-52.78	166.5	-219.2	275.2	274.2	1.01	271.843			
400.0	400.0	393.0	393.0	0.7	0.7	42.23	166.5	-219.2	273.9	272.6	1.36	201.062			
500.0	499.8	492.8	492.8	0.9	0.9	43.03	166.5	-219.2	270.1	268.4	1.72	157.192			
600.0	599.5	592.5	592.5	1.1	1.0	44.41	166.5	-219.2	263.8	261.7	2.09	126.373			
700.0	698.7	691.7	691.7	1.3	1.2	46.44	166.5	-219.2	255.2	252.7	2.48	102.891			
800.0	797.5	790.5	790.5	1.7	1.4	49.24	166.5	-219.2	244.6	241.7	2.91	84.028			
900.0	895.8	888.8	888.8	2.0	1.6	52.59	166.5	-219.2	233.2	229.8	3.38	69.028			
1,000.0	994.2	987.2	987.2	2.3	1.7	56.25	166.5	-219.2	222.5	218.6	3.87	57.468			
1,100.0	1,092.5	1,085.5	1,085.5	2.7	1.9	60.25	166.5	-219.2	212.9	208.5	4.39	48.479			
1,200.0	1,190.9	1,183.9	1,183.9	3.0	2.1	64.59	166.5	-219.2	204.4	199.5	4.93	41.440			
1,300.0	1,289.2	1,282.2	1,282.2	3.4	2.2	69.27	166.5	-219.2	197.2	191.7	5.49	35.917			
1,400.0	1,387.6	1,380.6	1,380.6	3.7	2.4	74.26	166.5	-219.2	191.5	185.4	6.06	31.598			
1,500.0	1,486.0	1,479.0	1,479.0	4.1	2.6	79.50	166.5	-219.2	187.3	180.7	6.63	28.251			
1,600.0	1,584.3	1,577.3	1,577.3	4.4	2.8	84.93	166.5	-219.2	184.8	177.6	7.19	25.699			
1,691.9	1,674.7	1,667.7	1,667.7	4.8	2.9	90.00	166.5	-219.2	184.1	176.4	7.69	23.933	CC		
1,700.0	1,682.7	1,675.7	1,675.7	4.8	2.9	90.45	166.5	-219.2	184.1	176.3	7.73	23.801	ES		
1,800.0	1,781.0	1,774.0	1,774.0	5.2	3.1	95.96	166.5	-219.2	185.1	176.8	8.25	22.441			
1,900.0	1,879.4	1,872.4	1,872.4	5.5	3.3	101.36	166.5	-219.2	187.9	179.1	8.73	21.525			
2,000.0	1,977.7	1,970.7	1,970.7	5.9	3.4	106.57	166.5	-219.2	192.3	183.1	9.17	20.969			
2,100.0	2,076.1	2,069.1	2,069.1	6.3	3.6	111.51	166.5	-219.2	198.3	188.7	9.58	20.705			
2,200.0	2,174.4	2,167.4	2,167.4	6.6	3.8	116.14	166.5	-219.2	205.7	195.7	9.95	20.674	SF		
2,300.0	2,272.8	2,265.8	2,265.8	7.0	4.0	120.42	166.5	-219.2	214.4	204.1	10.29	20.826			
2,400.0	2,371.1	2,364.1	2,364.1	7.3	4.1	124.37	166.5	-219.2	224.2	213.6	10.61	21.120			
2,500.0	2,469.5	2,462.5	2,462.5	7.7	4.3	127.97	166.5	-219.2	235.0	224.0	10.92	21.521			
2,600.0	2,567.8	2,560.8	2,560.8	8.1	4.5	131.25	166.5	-219.2	246.6	235.4	11.21	22.001			
2,700.0	2,666.2	2,659.2	2,659.2	8.4	4.6	134.23	166.5	-219.2	259.0	247.5	11.49	22.539			
2,800.0	2,764.5	2,757.5	2,757.5	8.8	4.8	136.94	166.5	-219.2	272.0	260.2	11.77	23.116			
2,900.0	2,862.9	2,855.9	2,855.9	9.2	5.0	139.40	166.5	-219.2	285.6	273.5	12.04	23.717			
3,000.0	2,961.3	2,954.3	2,954.3	9.5	5.2	141.64	166.5	-219.2	299.6	287.3	12.31	24.332			
3,100.0	3,059.6	3,052.6	3,052.6	9.9	5.3	143.67	166.5	-219.2	314.1	301.5	12.59	24.953			
3,200.0	3,158.0	3,151.0	3,151.0	10.2	5.5	145.53	166.5	-219.2	328.9	316.0	12.86	25.572			
3,300.0	3,256.3	3,249.3	3,249.3	10.6	5.7	147.22	166.5	-219.2	344.0	330.9	13.14	26.185			
3,400.0	3,354.7	3,347.7	3,347.7	11.0	5.8	148.77	166.5	-219.2	359.4	346.0	13.42	26.788			
3,500.0	3,453.0	3,446.0	3,446.0	11.3	6.0	150.20	166.5	-219.2	375.0	361.3	13.70	27.378			
3,600.0	3,551.4	3,544.4	3,544.4	11.7	6.2	151.51	166.5	-219.2	390.9	376.9	13.98	27.954			
3,700.0	3,649.7	3,642.7	3,642.7	12.1	6.4	152.72	166.5	-219.2	406.9	392.6	14.27	28.514			
3,800.0	3,748.1	3,741.1	3,741.1	12.4	6.5	153.84	166.5	-219.2	423.1	408.6	14.56	29.057			
3,900.0	3,846.4	3,839.4	3,839.4	12.8	6.7	154.88	166.5	-219.2	439.5	424.6	14.85	29.584			
4,000.0	3,944.8	3,937.8	3,937.8	13.2	6.9	155.84	166.5	-219.2	455.9	440.8	15.15	30.093			
4,100.0	4,043.1	4,036.1	4,036.1	13.5	7.0	156.73	166.5	-219.2	472.5	457.1	15.45	30.585			
4,200.0	4,141.5	4,134.5	4,134.5	13.9	7.2	157.57	166.5	-219.2	489.2	473.5	15.75	31.061			

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 Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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: 100-Gyro													Offset Well Error:		0.0 ft			
Reference				Offset				Semi Major Axis					Distance					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning					
9,600.0	7,231.0	7,191.1	7,190.2	50.5	6.3	89.29	2,585.5	-759.4	493.5	441.6	51.94	9.502						
9,700.0	7,231.0	7,192.0	7,191.1	52.0	6.3	89.39	2,585.5	-759.4	467.8	414.2	53.63	8.723						
9,773.6	7,231.0	7,192.6	7,191.7	53.2	6.3	89.47	2,585.5	-759.4	462.0	407.1	54.88	8.418	CC, ES					
9,800.0	7,231.0	7,192.8	7,191.9	53.6	6.3	89.50	2,585.5	-759.4	462.8	407.4	55.33	8.363	SF					
9,900.0	7,231.0	7,193.7	7,192.8	55.1	6.3	89.60	2,585.5	-759.4	479.0	422.0	57.03	8.398						

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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: 716-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		
10,200.0	7,231.0	7,312.9	7,212.4	59.9	22.3	87.88	3,488.6	-1,136.4	484.2	407.6	76.56	6.324			
10,300.0	7,231.0	7,313.5	7,213.1	61.5	22.3	88.32	3,488.6	-1,136.4	386.1	307.8	78.30	4.932			
10,400.0	7,231.0	7,314.2	7,213.8	63.1	22.3	88.76	3,488.6	-1,136.4	289.4	209.4	80.03	3.617			
10,500.0	7,231.0	7,314.9	7,214.4	64.7	22.3	89.20	3,488.6	-1,136.4	196.1	114.3	81.76	2.398			
10,600.0	7,231.0	7,315.5	7,215.1	66.3	22.3	89.65	3,488.6	-1,136.4	114.5	31.0	83.50	1.371	Level 3		
10,676.7	7,231.0	7,316.0	7,215.6	67.6	22.3	89.99	3,488.6	-1,136.4	85.0	0.2	84.82	1.002	Level 2, CC, ES, SF		
10,700.0	7,231.0	7,316.2	7,215.7	68.0	22.3	90.10	3,488.6	-1,136.4	88.2	2.9	85.22	1.034	Level 2		
10,800.0	7,231.0	7,316.8	7,216.4	69.6	22.3	90.54	3,488.6	-1,136.4	149.8	62.8	86.95	1.723			
10,900.0	7,231.0	7,317.5	7,217.1	71.2	22.3	90.99	3,488.6	-1,136.4	239.0	150.3	88.67	2.695			
11,000.0	7,231.0	7,318.2	7,217.7	72.9	22.3	91.44	3,488.6	-1,136.4	334.3	243.9	90.39	3.699			
11,100.0	7,231.0	7,318.8	7,218.4	74.5	22.3	91.89	3,488.6	-1,136.4	431.8	339.7	92.10	4.688			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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: 104-MWD													S14-T2N-R68W (Grant Elmquist/Salisbury) - SALISBURY 14-11 (EXISTING) - EXISTING - SURVEYS		Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		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)	Uncertainty Axis					
8,800.0	7,231.0	7,271.9	7,213.5	38.9	16.8	90.11	1,964.3	-929.2	457.8	409.1	48.68	9.405				
8,900.0	7,231.0	7,271.9	7,213.6	40.3	16.8	90.11	1,964.3	-929.2	386.1	335.8	50.30	7.676				
9,000.0	7,231.0	7,271.9	7,213.6	41.7	16.8	90.11	1,964.3	-929.2	329.6	277.6	51.94	6.345				
9,100.0	7,231.0	7,271.9	7,213.6	43.1	16.8	90.11	1,964.3	-929.2	296.9	243.3	53.59	5.540				
9,152.4	7,231.0	7,271.9	7,213.6	43.9	16.8	90.11	1,964.3	-929.2	292.2	237.8	54.46	5.366 CC, ES				
9,200.0	7,231.0	7,271.9	7,213.6	44.5	16.8	90.12	1,964.3	-929.2	296.1	240.8	55.25	5.359 SF				
9,300.0	7,231.0	7,271.9	7,213.6	46.0	16.8	90.12	1,964.3	-929.2	327.4	270.5	56.92	5.752				
9,400.0	7,231.0	7,272.0	7,213.6	47.5	16.8	90.12	1,964.3	-929.2	383.0	324.4	58.59	6.537				
9,500.0	7,231.0	7,272.0	7,213.6	49.0	16.8	90.12	1,964.3	-929.2	454.1	393.8	60.28	7.534				

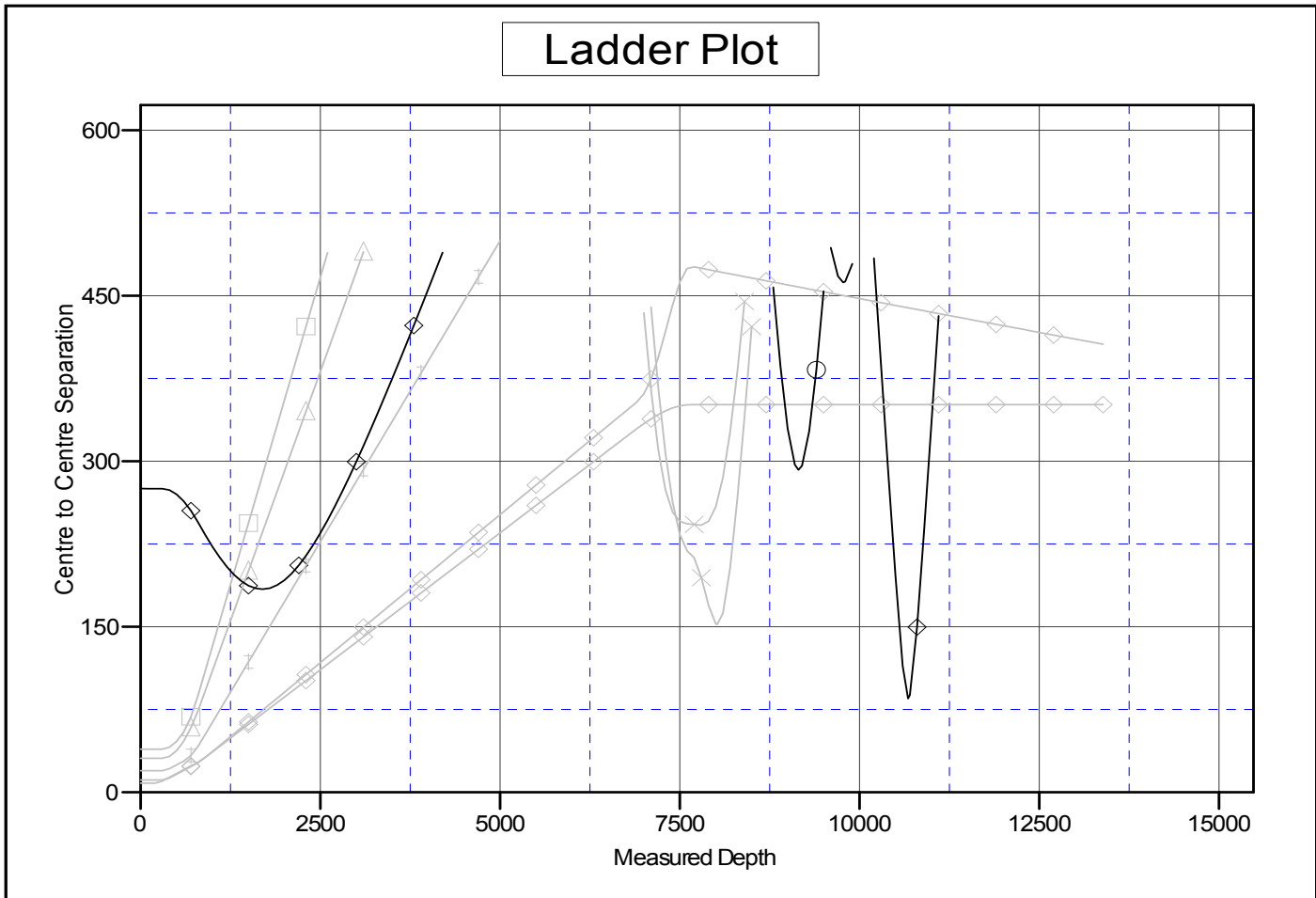
# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Grant Salisbury 2B-14H-C268
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4894.0ft
<b>Reference Site:</b>	S14-T2N-R68W (Grant Elmquist/Salisbury)	<b>MD Reference:</b>	KB @ 4894.0ft
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Grant Salisbury 2B-14H-C268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are 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 @ 4894.0ft  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Grant Salisbury 2B-14H-C268  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.34°



### LEGEND

- |                                     |  |   |
|-------------------------------------|--|---|
| IRY 1 (EXISTING), EXISTING, GYRO V0 | ◆ SALISBURY 13-11 (EXISTING), EXISTING, SURVEYS V0 | ◆ GrantSalisbury2A-14H-C268, Hz, Plan #1 V0 |
| istry2D-14H-C268, Hz, Plan #1 V0    | ✕ GrantElmquist2B-14H-C268, Hz, Plan #1 V0         | ◆ OLANDER 2 (EXISTING), EXISTING, NO S      |
| quist2A-14H-C268, Hz, Plan #1 V0    | △ GrantSalisbury2E-14H-C268, Hz, Plan #1 V0        | ○ SALISBURY 14-11 (EXISTING), EXISTING      |
| istry2F-14H-C268, Hz, Plan #1 V0    | ◆ GrantSalisbury2C-14H-C268, Hz, Plan #1 V0        |   |

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