

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	North Reference:	True
Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

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

Site		S32-T2N-R68W (File/Hwy 52)			
Site Position:		Northing:	1,275,973.93 ft	Latitude:	40.089950
From:	Lat/Long	Easting:	3,133,277.97 ft	Longitude:	-105.023660
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.31 °

Well	Hwy 52 4K-32H-O268					
Well Position	+N/-S	0.0 ft	Northing:	1,275,749.69 ft	Latitude:	40.089339
	+E/-W	0.0 ft	Easting:	3,132,939.09 ft	Longitude:	-105.024876
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,988.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/1/2013	8.70	66.69	52,723

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	0.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
924.4	5.24	164.80	923.7	-23.1	6.3	1.00	1.00	0.00	164.80	
7,115.3	5.24	164.80	7,088.6	-569.2	154.7	0.00	0.00	0.00	0.00	
8,065.9	90.00	359.80	7,712.0	1.6	167.5	10.00	8.92	-17.36	-164.94	
12,333.9	90.00	359.80	7,712.0	4,269.5	152.6	0.00	0.00	0.00	0.00	Hwy 52 4K-32H-O268

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Site:	S32-T2N-R68W (File/Hwy 52)	North Reference:	True
Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

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	
328.0	0.00	0.00	328.0	0.0	0.0	0.0	0.00	0.00	Fox Hills - BASE
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	KOP @ 400'
500.0	1.00	164.80	500.0	-0.8	0.2	-0.8	1.00	1.00	
600.0	2.00	164.80	600.0	-3.4	0.9	-3.4	1.00	1.00	
700.0	3.00	164.80	699.9	-7.6	2.1	-7.6	1.00	1.00	
800.0	4.00	164.80	799.7	-13.5	3.7	-13.5	1.00	1.00	
900.0	5.00	164.80	899.4	-21.0	5.7	-21.0	1.00	1.00	
924.4	5.24	164.80	923.7	-23.1	6.3	-23.1	1.00	1.00	EOB; Inc=5.24°
1,000.0	5.24	164.80	999.0	-29.8	8.1	-29.8	0.00	0.00	
1,100.0	5.24	164.80	1,098.5	-38.6	10.5	-38.6	0.00	0.00	
1,200.0	5.24	164.80	1,198.1	-47.5	12.9	-47.5	0.00	0.00	
1,300.0	5.24	164.80	1,297.7	-56.3	15.3	-56.3	0.00	0.00	
1,400.0	5.24	164.80	1,397.3	-65.1	17.7	-65.1	0.00	0.00	
1,500.0	5.24	164.80	1,496.9	-73.9	20.1	-73.9	0.00	0.00	
1,600.0	5.24	164.80	1,596.4	-82.7	22.5	-82.7	0.00	0.00	
1,700.0	5.24	164.80	1,696.0	-91.6	24.9	-91.6	0.00	0.00	
1,800.0	5.24	164.80	1,795.6	-100.4	27.3	-100.4	0.00	0.00	
1,900.0	5.24	164.80	1,895.2	-109.2	29.7	-109.2	0.00	0.00	
2,000.0	5.24	164.80	1,994.8	-118.0	32.1	-118.0	0.00	0.00	
2,100.0	5.24	164.80	2,094.3	-126.8	34.5	-126.8	0.00	0.00	
2,200.0	5.24	164.80	2,193.9	-135.7	36.9	-135.7	0.00	0.00	
2,300.0	5.24	164.80	2,293.5	-144.5	39.3	-144.5	0.00	0.00	
2,400.0	5.24	164.80	2,393.1	-153.3	41.7	-153.3	0.00	0.00	
2,500.0	5.24	164.80	2,492.7	-162.1	44.1	-162.1	0.00	0.00	
2,600.0	5.24	164.80	2,592.3	-170.9	46.5	-170.9	0.00	0.00	
2,700.0	5.24	164.80	2,691.8	-179.8	48.8	-179.8	0.00	0.00	
2,800.0	5.24	164.80	2,791.4	-188.6	51.2	-188.6	0.00	0.00	
2,900.0	5.24	164.80	2,891.0	-197.4	53.6	-197.4	0.00	0.00	
3,000.0	5.24	164.80	2,990.6	-206.2	56.0	-206.2	0.00	0.00	
3,100.0	5.24	164.80	3,090.2	-215.0	58.4	-215.0	0.00	0.00	
3,200.0	5.24	164.80	3,189.7	-223.9	60.8	-223.9	0.00	0.00	
3,300.0	5.24	164.80	3,289.3	-232.7	63.2	-232.7	0.00	0.00	
3,400.0	5.24	164.80	3,388.9	-241.5	65.6	-241.5	0.00	0.00	
3,500.0	5.24	164.80	3,488.5	-250.3	68.0	-250.3	0.00	0.00	
3,600.0	5.24	164.80	3,588.1	-259.1	70.4	-259.1	0.00	0.00	
3,700.0	5.24	164.80	3,687.6	-268.0	72.8	-268.0	0.00	0.00	
3,800.0	5.24	164.80	3,787.2	-276.8	75.2	-276.8	0.00	0.00	
3,900.0	5.24	164.80	3,886.8	-285.6	77.6	-285.6	0.00	0.00	
4,000.0	5.24	164.80	3,986.4	-294.4	80.0	-294.4	0.00	0.00	
4,100.0	5.24	164.80	4,086.0	-303.2	82.4	-303.2	0.00	0.00	
4,200.0	5.24	164.80	4,185.6	-312.1	84.8	-312.1	0.00	0.00	
4,300.0	5.24	164.80	4,285.1	-320.9	87.2	-320.9	0.00	0.00	
4,397.3	5.24	164.80	4,382.0	-329.5	89.5	-329.5	0.00	0.00	Sussex
4,400.0	5.24	164.80	4,384.7	-329.7	89.6	-329.7	0.00	0.00	
4,500.0	5.24	164.80	4,484.3	-338.5	92.0	-338.5	0.00	0.00	
4,600.0	5.24	164.80	4,583.9	-347.3	94.4	-347.3	0.00	0.00	
4,664.4	5.24	164.80	4,648.0	-353.0	95.9	-353.0	0.00	0.00	Sussex Marker
4,700.0	5.24	164.80	4,683.5	-356.2	96.8	-356.2	0.00	0.00	

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Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

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	5.24	164.80	4,783.0	-365.0	99.2	-365.0	0.00	0.00	
4,900.0	5.24	164.80	4,882.6	-373.8	101.6	-373.8	0.00	0.00	
4,957.6	5.24	164.80	4,940.0	-378.9	103.0	-378.9	0.00	0.00	Shannon
5,000.0	5.24	164.80	4,982.2	-382.6	104.0	-382.6	0.00	0.00	
5,100.0	5.24	164.80	5,081.8	-391.4	106.4	-391.4	0.00	0.00	
5,200.0	5.24	164.80	5,181.4	-400.3	108.8	-400.3	0.00	0.00	
5,300.0	5.24	164.80	5,281.0	-409.1	111.2	-409.1	0.00	0.00	
5,400.0	5.24	164.80	5,380.5	-417.9	113.6	-417.9	0.00	0.00	
5,500.0	5.24	164.80	5,480.1	-426.7	116.0	-426.7	0.00	0.00	
5,600.0	5.24	164.80	5,579.7	-435.5	118.4	-435.5	0.00	0.00	
5,700.0	5.24	164.80	5,679.3	-444.4	120.8	-444.4	0.00	0.00	
5,800.0	5.24	164.80	5,778.9	-453.2	123.2	-453.2	0.00	0.00	
5,900.0	5.24	164.80	5,878.4	-462.0	125.6	-462.0	0.00	0.00	
6,000.0	5.24	164.80	5,978.0	-470.8	127.9	-470.8	0.00	0.00	
6,100.0	5.24	164.80	6,077.6	-479.6	130.3	-479.6	0.00	0.00	
6,200.0	5.24	164.80	6,177.2	-488.5	132.7	-488.5	0.00	0.00	
6,300.0	5.24	164.80	6,276.8	-497.3	135.1	-497.3	0.00	0.00	
6,400.0	5.24	164.80	6,376.3	-506.1	137.5	-506.1	0.00	0.00	
6,500.0	5.24	164.80	6,475.9	-514.9	139.9	-514.9	0.00	0.00	
6,524.2	5.24	164.80	6,500.0	-517.1	140.5	-517.1	0.00	0.00	Teepee Buttes (*if present)
6,600.0	5.24	164.80	6,575.5	-523.7	142.3	-523.7	0.00	0.00	
6,700.0	5.24	164.80	6,675.1	-532.6	144.7	-532.6	0.00	0.00	
6,800.0	5.24	164.80	6,774.7	-541.4	147.1	-541.4	0.00	0.00	
6,900.0	5.24	164.80	6,874.3	-550.2	149.5	-550.2	0.00	0.00	
7,000.0	5.24	164.80	6,973.8	-559.0	151.9	-559.0	0.00	0.00	
7,100.0	5.24	164.80	7,073.4	-567.8	154.3	-567.8	0.00	0.00	
7,115.3	5.24	164.80	7,088.6	-569.2	154.7	-569.2	0.00	0.00	Start build/turn @ 7115' MD
7,200.0	3.67	21.55	7,173.2	-570.4	156.7	-570.4	10.00	-1.86	
7,292.8	12.76	5.82	7,265.0	-557.4	158.8	-557.4	10.00	9.80	Sharon Springs
7,300.0	13.47	5.49	7,272.0	-555.8	159.0	-555.8	10.00	9.95	
7,380.8	21.53	3.25	7,349.0	-531.6	160.7	-531.6	10.00	9.97	Niobrara
7,400.0	23.44	2.94	7,366.8	-524.3	161.1	-524.3	10.00	9.98	
7,458.3	29.27	2.23	7,419.0	-498.4	162.3	-498.4	10.00	9.99	B Chalk
7,500.0	33.43	1.86	7,454.6	-476.7	163.1	-476.7	10.00	9.99	
7,543.6	37.79	1.56	7,490.0	-451.4	163.8	-451.4	10.00	9.99	B Marl
7,600.0	43.42	1.24	7,532.8	-414.7	164.7	-414.7	10.00	9.99	
7,653.7	48.79	0.99	7,570.0	-376.0	165.4	-376.0	10.00	9.99	C Chalk
7,698.2	53.24	0.82	7,598.0	-341.5	166.0	-341.5	10.00	10.00	C Marl
7,700.0	53.42	0.81	7,599.1	-340.0	166.0	-340.0	10.00	10.00	
7,800.0	63.42	0.48	7,651.4	-254.9	167.0	-254.9	10.00	10.00	
7,873.5	70.76	0.28	7,680.0	-187.3	167.4	-187.3	10.00	10.00	Ft. Hayes
7,900.0	73.41	0.21	7,688.1	-162.0	167.5	-162.0	10.00	10.00	
7,958.7	79.28	0.06	7,702.0	-105.0	167.6	-105.0	10.00	10.00	Codell
8,000.0	83.41	359.96	7,708.2	-64.2	167.6	-64.2	10.00	10.00	
8,065.9	90.00	359.80	7,712.0	1.6	167.5	1.6	10.00	10.00	LP @ 7712' TVD; 90°
8,100.0	90.00	359.80	7,712.0	35.6	167.4	35.6	0.00	0.00	
8,200.0	90.00	359.80	7,712.0	135.6	167.0	135.6	0.00	0.00	
8,300.0	90.00	359.80	7,712.0	235.6	166.7	235.6	0.00	0.00	
8,400.0	90.00	359.80	7,712.0	335.6	166.3	335.6	0.00	0.00	
8,500.0	90.00	359.80	7,712.0	435.6	166.0	435.6	0.00	0.00	
8,600.0	90.00	359.80	7,712.0	535.6	165.6	535.6	0.00	0.00	
8,700.0	90.00	359.80	7,712.0	635.6	165.3	635.6	0.00	0.00	

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Project:	DJ Wattenberg	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	North Reference:	True
Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,800.0	90.00	359.80	7,712.0	735.6	164.9	735.6	0.00	0.00	
8,900.0	90.00	359.80	7,712.0	835.6	164.6	835.6	0.00	0.00	
9,000.0	90.00	359.80	7,712.0	935.6	164.2	935.6	0.00	0.00	
9,100.0	90.00	359.80	7,712.0	1,035.6	163.9	1,035.6	0.00	0.00	
9,200.0	90.00	359.80	7,712.0	1,135.6	163.5	1,135.6	0.00	0.00	
9,300.0	90.00	359.80	7,712.0	1,235.6	163.2	1,235.6	0.00	0.00	
9,400.0	90.00	359.80	7,712.0	1,335.6	162.8	1,335.6	0.00	0.00	
9,500.0	90.00	359.80	7,712.0	1,435.6	162.5	1,435.6	0.00	0.00	
9,600.0	90.00	359.80	7,712.0	1,535.6	162.1	1,535.6	0.00	0.00	
9,700.0	90.00	359.80	7,712.0	1,635.6	161.8	1,635.6	0.00	0.00	
9,800.0	90.00	359.80	7,712.0	1,735.6	161.4	1,735.6	0.00	0.00	
9,900.0	90.00	359.80	7,712.0	1,835.6	161.1	1,835.6	0.00	0.00	
10,000.0	90.00	359.80	7,712.0	1,935.6	160.7	1,935.6	0.00	0.00	
10,100.0	90.00	359.80	7,712.0	2,035.6	160.4	2,035.6	0.00	0.00	
10,200.0	90.00	359.80	7,712.0	2,135.6	160.1	2,135.6	0.00	0.00	
10,300.0	90.00	359.80	7,712.0	2,235.6	159.7	2,235.6	0.00	0.00	
10,400.0	90.00	359.80	7,712.0	2,335.6	159.4	2,335.6	0.00	0.00	
10,500.0	90.00	359.80	7,712.0	2,435.6	159.0	2,435.6	0.00	0.00	
10,600.0	90.00	359.80	7,712.0	2,535.6	158.7	2,535.6	0.00	0.00	
10,700.0	90.00	359.80	7,712.0	2,635.6	158.3	2,635.6	0.00	0.00	
10,800.0	90.00	359.80	7,712.0	2,735.6	158.0	2,735.6	0.00	0.00	
10,900.0	90.00	359.80	7,712.0	2,835.6	157.6	2,835.6	0.00	0.00	
11,000.0	90.00	359.80	7,712.0	2,935.6	157.3	2,935.6	0.00	0.00	
11,100.0	90.00	359.80	7,712.0	3,035.6	156.9	3,035.6	0.00	0.00	
11,200.0	90.00	359.80	7,712.0	3,135.6	156.6	3,135.6	0.00	0.00	
11,300.0	90.00	359.80	7,712.0	3,235.6	156.2	3,235.6	0.00	0.00	
11,400.0	90.00	359.80	7,712.0	3,335.6	155.9	3,335.6	0.00	0.00	
11,500.0	90.00	359.80	7,712.0	3,435.6	155.5	3,435.6	0.00	0.00	
11,600.0	90.00	359.80	7,712.0	3,535.6	155.2	3,535.6	0.00	0.00	
11,700.0	90.00	359.80	7,712.0	3,635.6	154.8	3,635.6	0.00	0.00	
11,800.0	90.00	359.80	7,712.0	3,735.6	154.5	3,735.6	0.00	0.00	
11,900.0	90.00	359.80	7,712.0	3,835.6	154.1	3,835.6	0.00	0.00	
12,000.0	90.00	359.80	7,712.0	3,935.6	153.8	3,935.6	0.00	0.00	
12,100.0	90.00	359.80	7,712.0	4,035.6	153.4	4,035.6	0.00	0.00	
12,200.0	90.00	359.80	7,712.0	4,135.6	153.1	4,135.6	0.00	0.00	
12,300.0	90.00	359.80	7,712.0	4,235.6	152.7	4,235.6	0.00	0.00	
12,333.9	90.00	359.80	7,712.0	4,269.5	152.6	4,269.5	0.00	0.00	TD at 12333.9

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Hwy 52 4K-32H-O268 P	0.00	0.00	7,712.0	4,269.5	152.6	1,280,020.00	3,133,068.81	40.101060	-105.024330
- plan hits target center									
- Point									

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site:	S32-T2N-R68W (File/Hwy 52)	North Reference:	True
Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
328.0	328.0	Fox Hills - BASE				
4,397.3	4,382.0	Sussex				
4,664.4	4,648.0	Sussex Marker				
4,957.6	4,940.0	Shannon				
6,524.2	6,500.0	Teepee Buttes (*if present)				
7,292.8	7,265.0	Sharon Springs				
7,380.8	7,349.0	Niobrara				
7,458.3	7,419.0	B Chalk				
7,543.6	7,490.0	B Marl				
7,653.7	7,570.0	C Chalk				
7,698.2	7,598.0	C Marl				
7,873.5	7,680.0	Ft. Hayes				
7,958.7	7,702.0	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
400.0	400.0	0.0	0.0	KOP @ 400'	
924.4	923.7	-23.1	6.3	EOB; Inc=5.24°	
7,115.3	7,088.6	-569.2	154.7	Start build/turn @ 7115' MD	
8,065.9	7,712.0	1.6	167.5	LP @ 7712' TVD; 90°	
12,333.9	7,712.0	4,269.5	152.6	TD at 12333.9	

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S32-T2N-R68W (File/Hwy 52)

Hwy 52 4K-32H-O268

Hz

Plan #2

Anticollision Report

14 October, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	10/14/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	12,333.5	Plan #2 (Hz)	Geolink MWD	Geolink MWD	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S32-T2N-R68W (File/Hwy 52)						
ANDERSON 21-32 (EXISTING) - ENCANA WELL - NO S						Out of range
ANDERSON 22-32 (EXISTING) - KPK WELL - NO SURV						Out of range
ANDERSON 22-32 ENC (EXISTING) - ENCANA WELL -						Out of range
ANDERSON 31-32 (EXISTING) - ENCANA WELL - PLAN	12,287.1	7,763.1	167.9	74.5	1.798	CC, ES, SF
ANDERSON 32-32 (EXISTING) - ENCANA WELL - SUR	10,866.0	7,859.1	190.7	116.8	2.581	CC, ES, SF
ANDERSON 32-7 (EXISTING) - KPK WELL - NO SURVE						Out of range
ANDERSON 41-32 (EXISTING) - ENCANA WELL - NO S						Out of range
ANDERSON 4-2-32 (EXISTING) - ENCANA WELL - SUR						Out of range
ANDERSON 6-4-32 (EXISTING) - ENCANA WELL - SUR	10,264.8	7,924.0	409.8	337.4	5.662	CC, ES
ANDERSON 6-4-32 (EXISTING) - ENCANA WELL - SUR	10,300.0	7,923.9	411.3	338.3	5.637	SF
ANDERSON TRUST 1 (EXISTING) - KPK WELL - NO S						Out of range
ANDERSON TRUST 1 A (EXISTING) - ENCANA WELL -						Out of range
ANDERSON TRUST 2 A (EXISTING) - ENCANA WELL -						Out of range
ANDERSON TRUST 32-2 (EXISTING) - ENCANA WELL	12,231.4	7,650.0	57.1	-32.4	0.638	Level 1, CC, ES, SF
ANDERSON TRUST 32-8 (EXISTING) - ENCANA WELL						Out of range
ANDERSON TRUST C 1 (EXISTING) - ENCANA WELL						Out of range
ANDERSON TRUST C UNIT 2 (EXISTING) - ENCANA W						Out of range
BROWN 22-5 (EXISTING) - ENCANA WELL - NO SURV						Out of range
BROWN 31-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
BROWN 41-5 (EXISTING) - ENCANA WELL - ENCANA	1,146.0	1,150.7	362.6	357.3	68.259	CC, ES
BROWN 41-5 (EXISTING) - ENCANA WELL - ENCANA	2,000.0	1,921.1	481.9	470.9	44.153	SF
BROWN 5-3 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
BROWN 5-5 (EXISTING) - ENCANA WELL - NO SURVE						Out of range
BROWN C UNIT 1 (EXISTING) - ENCANA WELL - NO S						Out of range
BROWN C UNIT 2 (EXISTING) - ENCANA WELL - NO S						Out of range
BULTHAUP 39-6 (EXISTING) - KERR-MCGEE WELL - S						Out of range
BULTHAUP 40-6 (EXISTING) - KERR-MCGEE WELL - S						Out of range
CANINO 1-X (EXISTING) - ENCANA WELL - NO SURVE						Out of range
FEDERAL NOAA 11-32 (EXISTING) - ENCANA WELL - N						Out of range
File 3A-32H-K268 - Hz - Plan #3						Out of range
File 3B-32H-K268 - Hz - Plan #1						Out of range
File 3C-32H-K268 - Hz - Plan #2						Out of range
File 3D-32H-K268 - Hz - Plan #1						Out of range
File 3E-32H-K268 - Hz - Plan #1						Out of range
File 3F-32H-K268 - Hz - Plan #1						Out of range
File 3G-32H-K268 - Hz - Plan #2						Out of range
File 3H-32H-K268 - Hz - Plan #1						Out of range
File 3I-32H-K268 - Hz - Plan #2						Out of range
File 3J-32H-K268 - Hz - Plan #1						Out of range
File 3K-32H-K268 - Hz - Plan #1						Out of range
File 3L-32H-K268 - Hz - Plan #1						Out of range
File 3M-32H-K268 - Hz - Plan #2						Out of range
File 3N-32H-K268 - Hz - Plan #1						Out of range
File 3O-32H-K268 - Hz - Plan #1						Out of range
File 3P-32H-K268 - Hz - Plan #1						Out of range
FOSTER 33-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 43-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 4-5 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
FOSTER 4-6-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 6-4-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 6-4-5X (EXISTING) - ENCANA WELL - SURVE						Out of range
FOSTER 6-8-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range
FOSTER 8-8-5 (EXISTING) - ENCANA WELL - SURVEY						Out of range

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S32-T2N-R68W (File/Hwy 52)						
FOSTER E UNIT 1 (EXISTING) - ENCANA WELL - NO S						Out of range
GENE 11-5 (EXISTING) - KERR-MCGEE WELL - NO SU						Out of range
HIGHLAND 21-5 (EXISTING) - KPK WELL - NO SURVE						Out of range
HOPE 31-5 (EXISTING) - KPK WELL - NO SURVEYS						Out of range
Hwy 52 4A-32H-O268 - Hz - Plan #1	166.0	168.0	70.0	69.5	131.943	CC
Hwy 52 4A-32H-O268 - Hz - Plan #1	200.0	202.0	70.0	69.4	107.822	ES
Hwy 52 4A-32H-O268 - Hz - Plan #1	1,400.0	1,388.5	180.4	175.4	36.097	SF
Hwy 52 4B-32H-O268 - Hz - Plan #1	166.3	167.3	65.3	64.7	123.166	CC
Hwy 52 4B-32H-O268 - Hz - Plan #1	200.0	201.0	65.3	64.6	100.813	ES
Hwy 52 4B-32H-O268 - Hz - Plan #1	7,800.0	7,834.4	499.4	470.8	17.430	SF
Hwy 52 4C-32H-O268 - Hz - Plan #1	7,467.3	7,766.8	54.6	22.8	1.717	CC, ES, SF
Hwy 52 4D-32H-O268 - Hz - Plan #1	791.5	794.6	55.3	52.6	20.188	CC
Hwy 52 4D-32H-O268 - Hz - Plan #1	800.0	803.2	55.3	52.5	19.966	ES
Hwy 52 4D-32H-O268 - Hz - Plan #1	7,845.8	7,807.4	286.8	258.5	10.119	SF
Hwy 52 4E-32H-O268 - Hz - Plan #1	400.0	401.0	40.0	38.7	29.725	CC
Hwy 52 4E-32H-O268 - Hz - Plan #1	500.0	501.0	40.2	38.5	23.739	ES
Hwy 52 4E-32H-O268 - Hz - Plan #1	1,300.0	1,301.2	72.0	67.5	15.905	SF
Hwy 52 4F-32H-O268 - Hz - Plan #1	400.0	401.0	35.5	34.2	26.389	CC
Hwy 52 4F-32H-O268 - Hz - Plan #1	619.5	621.3	36.1	34.0	17.041	ES
Hwy 52 4F-32H-O268 - Hz - Plan #1	800.0	801.3	39.9	37.1	14.276	SF
Hwy 52 4G-32H-O268 - Hz - Plan #1	400.0	401.0	30.0	28.7	22.294	CC
Hwy 52 4G-32H-O268 - Hz - Plan #1	500.0	501.0	30.2	28.5	17.842	ES
Hwy 52 4G-32H-O268 - Hz - Plan #1	1,200.0	1,202.4	46.9	42.7	11.026	SF
Hwy 52 4H-32H-O268 - Hz - Plan #1	400.0	401.0	25.7	24.4	19.106	CC, ES
Hwy 52 4H-32H-O268 - Hz - Plan #1	800.0	801.2	34.0	31.2	12.343	SF
Hwy 52 4I-32H-O268 - Hz - Plan #1	200.0	200.0	10.0	9.4	15.485	CC, ES
Hwy 52 4I-32H-O268 - Hz - Plan #1	400.0	399.7	12.7	11.3	9.427	SF
Hwy 52 4J-32H-O268 - Hz - Plan #1	499.7	499.8	6.7	5.0	3.963	CC
Hwy 52 4J-32H-O268 - Hz - Plan #1	500.0	500.1	6.7	5.0	3.960	ES
Hwy 52 4J-32H-O268 - Hz - Plan #1	600.0	600.1	7.4	5.3	3.587	SF
Hwy 52 4L-32H-O268 - Hz - Plan #1	400.0	400.0	7.8	6.5	5.812	CC, ES
Hwy 52 4L-32H-O268 - Hz - Plan #1	12,333.9	12,074.6	449.9	326.6	3.649	SF
Hwy 52 4M-32H-O268 - Hz - Plan #2	594.9	594.9	26.8	24.8	13.210	CC
Hwy 52 4M-32H-O268 - Hz - Plan #2	600.0	600.0	26.8	24.7	13.095	ES
Hwy 52 4M-32H-O268 - Hz - Plan #2	800.0	799.2	30.4	27.7	10.980	SF
Hwy 52 4N-32H-O268 - Hz - Plan #1	536.8	536.8	33.2	31.3	18.183	CC
Hwy 52 4N-32H-O268 - Hz - Plan #1	600.0	599.9	33.2	31.2	16.251	ES
Hwy 52 4N-32H-O268 - Hz - Plan #1	900.0	898.5	42.1	39.0	13.353	SF
Hwy 52 4O-32H-O268 - Hz - Plan #1	400.0	400.0	35.3	34.0	26.287	CC, ES
Hwy 52 4O-32H-O268 - Hz - Plan #1	900.0	896.4	52.9	49.7	16.657	SF
Hwy 52 4P-32H-O268 - Hz - Plan #1	200.0	200.0	41.4	40.7	64.101	CC, ES
Hwy 52 4P-32H-O268 - Hz - Plan #1	600.0	592.2	67.6	65.6	33.159	SF
LAURIE 32-5 (EXISTING) - KPK WELL - NO SURVEYS						Out of range
NATALIE 33-5 (EXISTING) - KPK WELL - NO SURVEYS						Out of range
NELSON 1 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 1 A (EXISTING) - TEXAS TEA WELL - NO SUR						Out of range
NELSON 2 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 3 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 4 (EXISTING) - TEXAS TEA WELL - NO SURV						Out of range
NELSON 5 (EXISTING) - VESSELS WELL - NO SURVE						Out of range
NELSON 5 TT (EXISTING) - TEXAS TEA WELL - NO SU						Out of range
NELSON 6 (EXISTING) - VESSELS WELL - NO SURVE						Out of range
NELSON E UNIT 1 (EXISTING) - ENCANA WELL - NO S						Out of range

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)		Between Ellipses (ft)	Separation Factor	Warning
S32-T2N-R68W (File/Hwy 52)							
NELSON E UNIT 2 (EXISTING) - ENCANA WELL - NO S							Out of range
PAQUETTE 13-5 (EXISTING) - KERR-MCGEE WELL - N							Out of range
PAQUETTE 14-5 (EXISTING) - KERR-MCGEE WELL - N							Out of range
RAY NELSON 0-4-32 (EXISTING) - ENCANA WELL - NO							Out of range
RAY NELSON 12-32 (EXISTING) - ENCANA WELL - NO							Out of range
RAY NELSON 13-32 (EXISTING) - ENCANA WELL - SU							Out of range
RAY NELSON 14-32 (EXISTING) - ENCANA WELL - SU							Out of range
RAY NELSON 23-32 (EXISTING) - ENCANA WELL - NO							Out of range
RAY NELSON 24-32 (EXISTING) - ENCANA WELL - SU							Out of range
RAY NELSON 2-4-32 (EXISTING) - ENCANA WELL - NO							Out of range
RAY NELSON 33-32 (EXISTING) - ENCANA WELL - EN	9,633.7	7,887.5	90.7	31.2	1.525	CC, ES, SF	
RAY NELSON 34-32 (EXISTING) - ENCANA WELL - EN	1,364.1	1,354.6	154.5	149.5	31.025	CC	
RAY NELSON 34-32 (EXISTING) - ENCANA WELL - EN	1,500.0	1,490.6	154.8	149.3	28.050	ES	
RAY NELSON 34-32 (EXISTING) - ENCANA WELL - EN	4,000.0	4,001.3	189.3	173.8	12.203	SF	
RAY NELSON 44-32 (EXISTING) - ENCANA WELL - EN	143.0	134.0	391.3	390.8	904.424	CC, ES	
RAY NELSON 44-32 (EXISTING) - ENCANA WELL - EN	1,000.0	917.4	488.6	485.1	142.351	SF	
RAY NELSON 4-4-32 (EXISTING) - ENCANA WELL - SU							Out of range
RAY NELSON 4-6-32 (EXISTING) - ENCANA WELL - SU							Out of range
RAY NELSON 4-8-32 (EXISTING) - ENCANA WELL - PL	4,542.8	4,785.1	457.4	420.5	12.404	CC	
RAY NELSON 4-8-32 (EXISTING) - ENCANA WELL - PL	4,600.0	4,838.3	457.8	420.2	12.166	ES	
RAY NELSON 4-8-32 (EXISTING) - ENCANA WELL - PL	4,900.0	5,117.9	475.4	434.4	11.596	SF	
RAY NELSON 6-8-32 (EXISTING) - ENCANA WELL - PL							Out of range
Ray Nelson 7-8-32 - DD - Plan #1	400.0	391.0	394.8	393.5	297.254	CC	
Ray Nelson 7-8-32 - DD - Plan #1	500.0	491.0	395.0	393.4	235.460	ES	
Ray Nelson 7-8-32 - DD - Plan #1	1,700.0	1,649.9	493.2	485.7	65.623	SF	
RAY NELSON 8-4-32 (EXISTING) - ENCANA WELL - PL							Out of range
RAY NELSON 8-6-32 (EXISTING) - ENCANA WELL - PL							Out of range
RAY NELSON 8-8-32 (EXISTING) - ENCANA WELL - SU	0.0	0.0	394.9				
RAY NELSON 8-8-32 (EXISTING) - ENCANA WELL - SU	1,100.0	1,007.3	491.2	486.6	107.725	SF	
SCHRINER 11-5 (EXISTING) - KERR-MCGEE WELL - N							Out of range
SCHRINER 12-5 (EXISTING) - KERR-MCGEE WELL - N							Out of range

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - ANDERSON 31-32 (EXISTING) - ENCANA WELL - PLAN ONLY													Offset Site Error:	0.0 ft
Survey Program: 850-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
11,900.0	7,712.0	7,763.1	7,659.0	70.5	23.8	-90.00	4,222.1	-15.1	421.9	335.2	86.69	4.867		
12,000.0	7,712.0	7,763.1	7,659.0	72.2	23.8	-90.00	4,222.1	-15.1	332.6	244.1	88.41	3.761		
12,100.0	7,712.0	7,763.1	7,659.0	73.9	23.8	-90.00	4,222.1	-15.1	251.4	161.2	90.13	2.789		
12,200.0	7,712.0	7,763.1	7,659.0	75.7	23.8	-90.00	4,222.1	-15.1	189.1	97.3	91.86	2.059		
12,287.1	7,712.0	7,763.1	7,659.0	77.2	23.8	-90.00	4,222.1	-15.1	167.9	74.5	93.36	1.798	CC, ES, SF	
12,300.0	7,712.0	7,763.1	7,659.0	77.4	23.8	-90.00	4,222.1	-15.1	168.4	74.8	93.58	1.799		
12,333.9	7,712.0	7,763.1	7,659.0	78.0	23.8	-90.00	4,222.1	-15.1	174.3	80.1	94.17	1.851		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - ANDERSON 32-32 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 71-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
10,500.0	7,712.0	7,852.4	7,647.2	46.7	27.8	-86.46	2,800.8	-32.7	412.6	345.0	67.66	6.099		
10,600.0	7,712.0	7,854.2	7,649.0	48.4	27.8	-87.00	2,800.8	-32.8	327.2	257.9	69.36	4.718		
10,700.0	7,712.0	7,856.1	7,650.8	50.1	27.8	-87.55	2,800.9	-32.8	252.8	181.7	71.06	3.558		
10,800.0	7,712.0	7,857.9	7,652.7	51.8	27.8	-88.10	2,800.9	-32.9	201.8	129.0	72.76	2.773		
10,866.0	7,712.0	7,859.1	7,653.9	52.9	27.8	-88.47	2,800.9	-32.9	190.7	116.8	73.89	2.581 CC, ES, SF		
10,900.0	7,712.0	7,859.7	7,654.5	53.4	27.8	-88.65	2,800.9	-32.9	193.7	119.3	74.47	2.602		
11,000.0	7,712.0	7,861.6	7,656.4	55.1	27.8	-89.21	2,801.0	-33.0	233.1	156.9	76.17	3.060		
11,100.0	7,712.0	7,863.5	7,658.2	56.8	27.8	-89.77	2,801.0	-33.0	301.9	224.0	77.87	3.877		
11,200.0	7,712.0	7,865.3	7,660.1	58.5	27.8	-90.33	2,801.0	-33.1	384.6	305.0	79.56	4.834		
11,300.0	7,712.0	7,867.2	7,662.0	60.2	27.8	-90.90	2,801.1	-33.1	474.0	392.8	81.26	5.834		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - ANDERSON 6-4-32 (EXISTING) - ENCANA WELL - SURVEYS												Offset Site Error:	0.0 ft
Survey Program: 71-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
10,000.0	7,712.0	7,925.2	7,682.0	38.5	30.6	91.40	2,201.9	569.5	487.9	419.9	68.01	7.174	
10,100.0	7,712.0	7,924.8	7,681.5	40.1	30.6	91.33	2,201.9	569.5	441.7	372.0	69.65	6.341	
10,200.0	7,712.0	7,924.3	7,681.1	41.7	30.6	91.27	2,201.9	569.5	414.9	343.6	71.30	5.818	
10,264.8	7,712.0	7,924.0	7,680.8	42.8	30.6	91.23	2,201.9	569.5	409.8	337.4	72.38	5.662 CC, ES	
10,300.0	7,712.0	7,923.9	7,680.6	43.4	30.6	91.21	2,201.9	569.5	411.3	338.3	72.96	5.637 SF	
10,400.0	7,712.0	7,923.4	7,680.2	45.1	30.6	91.15	2,201.9	569.5	431.5	356.9	74.62	5.782	
10,500.0	7,712.0	7,923.0	7,679.8	46.7	30.6	91.08	2,201.9	569.5	472.5	396.2	76.30	6.193	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													S32-T2N-R68W (File/Hwy 52) - ANDERSON TRUST 32-2 (EXISTING) - ENCANA WELL - NO SURVEY		Offset Site Error:		0.0 ft	
Survey Program:													7690-Geolink MWD		Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis				Distance							Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor						
11,800.0	7,712.0	7,650.0	7,650.0	68.8	13.4	-90.00	4,166.8	95.8	435.2	353.1	82.08	5.302						
11,900.0	7,712.0	7,650.0	7,650.0	70.5	13.4	-90.00	4,166.8	95.8	336.3	252.5	83.80	4.013						
12,000.0	7,712.0	7,650.0	7,650.0	72.2	13.4	-90.00	4,166.8	95.8	238.3	152.8	85.52	2.787						
12,100.0	7,712.0	7,650.0	7,650.0	73.9	13.4	-90.00	4,166.8	95.8	143.3	56.0	87.24	1.642						
12,200.0	7,712.0	7,650.0	7,650.0	75.7	13.4	-90.00	4,166.8	95.8	65.2	-23.8	88.96	0.733 Level 1						
12,231.4	7,712.0	7,650.0	7,650.0	76.2	13.4	-90.00	4,166.8	95.8	57.1	-32.4	89.50	0.638 Level 1, CC, ES, SF						
12,300.0	7,712.0	7,650.0	7,650.0	77.4	13.4	-90.00	4,166.8	95.8	89.3	-1.4	90.69	0.985 Level 1						
12,333.9	7,712.0	7,650.0	7,650.0	78.0	13.4	-90.00	4,166.8	95.8	117.4	26.1	91.27	1.286 Level 3						

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - BROWN 41-5 (EXISTING) - ENCANA WELL - ENCANA WELL											Offset Site Error: 0.0 ft		
Survey Program: 41-Geolink MWD											Offset Well Error: 0.0 ft		
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis		
0.0	0.0	0.0	0.0	0.0	0.0	57.71	207.8	328.9	389.2				
100.0	100.0	88.0	88.0	0.1	0.1	57.76	207.8	329.5	389.5	0.28	1,412.004		
200.0	200.0	187.4	187.4	0.3	0.3	57.85	207.7	330.5	390.4	0.62	625.601		
300.0	300.0	289.0	289.0	0.5	0.5	57.97	207.5	331.6	391.2	0.98	400.741		
400.0	400.0	400.0	399.9	0.7	0.7	58.28	205.1	331.9	390.3	1.35	289.011		
500.0	500.0	507.9	507.6	0.8	0.9	-105.87	198.5	331.6	387.1	1.73	223.251		
600.0	600.0	616.4	615.4	1.0	1.2	-104.72	186.4	332.1	382.5	2.16	176.741		
700.0	699.9	720.5	718.1	1.2	1.5	-103.13	169.4	333.1	376.3	2.65	142.187		
800.0	799.7	814.0	810.1	1.4	1.8	-101.60	152.7	335.1	371.2	3.14	118.341		
900.0	899.4	911.6	906.0	1.6	2.1	-99.99	134.5	338.8	368.0	3.69	99.821		
924.4	923.7	935.8	929.7	1.7	2.2	-99.61	129.9	339.9	367.3	3.83	95.980		
1,000.0	999.0	1,012.8	1,004.9	1.8	2.5	-98.15	113.8	343.6	365.3	4.31	84.773		
1,100.0	1,098.5	1,109.8	1,098.6	2.0	3.0	-95.65	89.9	349.8	363.0	5.00	72.599		
1,146.0	1,144.4	1,150.7	1,137.9	2.1	3.2	-94.43	79.0	353.1	362.6	5.31	68.259 CC, ES		
1,200.0	1,198.1	1,198.5	1,183.8	2.3	3.4	-92.97	66.3	357.7	363.1	5.68	63.924		
1,300.0	1,297.7	1,286.3	1,267.6	2.5	3.9	-90.13	42.5	368.1	366.9	6.38	57.519		
1,400.0	1,397.3	1,373.2	1,350.4	2.7	4.3	-87.34	19.2	380.8	374.7	7.06	53.082		
1,500.0	1,496.9	1,459.2	1,432.1	3.0	4.8	-84.72	-3.1	395.9	386.5	7.72	50.050		
1,600.0	1,596.4	1,551.7	1,519.5	3.2	5.3	-81.97	-27.5	413.9	401.1	8.41	47.724		
1,700.0	1,696.0	1,641.7	1,604.3	3.4	5.9	-79.52	-50.7	432.7	418.1	9.04	46.260		
1,800.0	1,795.6	1,729.5	1,686.8	3.6	6.4	-77.27	-73.5	452.6	437.7	9.65	45.342		
1,900.0	1,895.2	1,821.4	1,772.2	3.9	7.0	-74.87	-99.0	474.9	459.7	10.28	44.704		
2,000.0	1,994.8	1,921.1	1,864.4	4.1	7.7	-72.22	-128.9	498.3	481.9	10.91	44.153 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4A-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	2.0	2.0	0.0	0.0	-89.69	0.4	-70.0	70.0					
100.0	100.0	102.0	102.0	0.1	0.2	-89.69	0.4	-70.0	70.0	69.7	0.30	233.180		
166.0	166.0	168.0	168.0	0.3	0.3	-89.69	0.4	-70.0	70.0	69.5	0.53	131.943 CC		
200.0	200.0	202.0	202.0	0.3	0.3	-89.69	0.4	-70.0	70.0	69.4	0.65	107.822 ES		
300.0	300.0	300.8	300.8	0.5	0.5	-89.53	0.6	-70.9	70.9	69.9	1.00	71.142		
400.0	400.0	400.0	400.0	0.7	0.7	-89.07	1.2	-73.4	73.4	72.1	1.34	54.638		
500.0	500.0	498.2	498.0	0.8	0.9	107.39	2.2	-77.5	77.9	76.2	1.69	46.084		
600.0	600.0	596.5	596.2	1.0	1.1	109.80	3.6	-83.3	84.7	82.7	2.04	41.526		
700.0	699.9	695.3	694.7	1.2	1.3	112.91	5.4	-90.5	93.7	91.3	2.39	39.146		
800.0	799.7	794.6	793.7	1.4	1.5	116.34	7.1	-97.9	103.9	101.2	2.76	37.705		
900.0	899.4	893.7	892.6	1.6	1.7	119.89	8.9	-105.2	115.3	112.1	3.12	36.889		
924.4	923.7	917.9	916.7	1.7	1.7	120.75	9.4	-107.0	118.2	115.0	3.22	36.773		
1,000.0	999.0	992.7	991.2	1.8	1.9	123.31	10.7	-112.6	127.7	124.2	3.50	36.507		
1,100.0	1,098.5	1,091.7	1,089.9	2.0	2.1	126.17	12.5	-119.9	140.5	136.6	3.87	36.288		
1,200.0	1,198.1	1,190.6	1,188.6	2.3	2.3	128.54	14.3	-127.3	153.6	149.3	4.25	36.169		
1,300.0	1,297.7	1,289.6	1,287.2	2.5	2.5	130.54	16.0	-134.6	166.9	162.3	4.62	36.112		
1,400.0	1,397.3	1,388.5	1,385.9	2.7	2.8	132.24	17.8	-142.0	180.4	175.4	5.00	36.097 SF		
1,500.0	1,496.9	1,487.5	1,484.6	3.0	3.0	133.71	19.6	-149.3	194.0	188.6	5.37	36.108		
1,600.0	1,596.4	1,586.4	1,583.2	3.2	3.2	134.98	21.4	-156.6	207.7	202.0	5.75	36.136		
1,700.0	1,696.0	1,685.4	1,681.9	3.4	3.4	136.09	23.2	-164.0	221.6	215.4	6.12	36.174		
1,800.0	1,795.6	1,784.3	1,780.6	3.6	3.6	137.08	25.0	-171.3	235.5	229.0	6.50	36.219		
1,900.0	1,895.2	1,883.3	1,879.2	3.9	3.8	137.95	26.7	-178.7	249.4	242.5	6.88	36.268		
2,000.0	1,994.8	1,982.2	1,977.9	4.1	4.1	138.73	28.5	-186.0	263.4	256.2	7.25	36.319		
2,100.0	2,094.3	2,081.2	2,076.6	4.3	4.3	139.43	30.3	-193.4	277.5	269.8	7.63	36.370		
2,200.0	2,193.9	2,180.1	2,175.2	4.6	4.5	140.07	32.1	-200.7	291.5	283.5	8.00	36.422		
2,300.0	2,293.5	2,279.1	2,273.9	4.8	4.7	140.64	33.9	-208.0	305.7	297.3	8.38	36.472		
2,400.0	2,393.1	2,378.1	2,372.6	5.0	4.9	141.17	35.6	-215.4	319.8	311.0	8.76	36.521		
2,500.0	2,492.7	2,477.0	2,471.2	5.3	5.1	141.65	37.4	-222.7	334.0	324.8	9.13	36.569		
2,600.0	2,592.3	2,576.0	2,569.9	5.5	5.4	142.09	39.2	-230.1	348.2	338.7	9.51	36.615		
2,700.0	2,691.8	2,674.9	2,668.5	5.7	5.6	142.50	41.0	-237.4	362.4	352.5	9.88	36.660		
2,800.0	2,791.4	2,773.9	2,767.2	6.0	5.8	142.88	42.8	-244.8	376.6	366.3	10.26	36.703		
2,900.0	2,891.0	2,872.8	2,865.9	6.2	6.0	143.22	44.5	-252.1	390.8	380.2	10.64	36.744		
3,000.0	2,990.6	2,971.8	2,964.5	6.5	6.2	143.55	46.3	-259.4	405.1	394.1	11.01	36.784		
3,100.0	3,090.2	3,070.7	3,063.2	6.7	6.4	143.85	48.1	-266.8	419.3	408.0	11.39	36.822		
3,200.0	3,189.7	3,169.7	3,161.9	6.9	6.7	144.13	49.9	-274.1	433.6	421.9	11.76	36.859		
3,300.0	3,289.3	3,268.6	3,260.5	7.2	6.9	144.40	51.7	-281.5	447.9	435.8	12.14	36.894		
3,400.0	3,388.9	3,367.6	3,359.2	7.4	7.1	144.65	53.4	-288.8	462.2	449.7	12.52	36.927		
3,500.0	3,488.5	3,466.6	3,457.9	7.6	7.3	144.88	55.2	-296.2	476.5	463.6	12.89	36.960		
3,600.0	3,588.1	3,565.5	3,556.5	7.9	7.5	145.10	57.0	-303.5	490.8	477.5	13.27	36.991		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4B-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	1.0	1.0	0.0	0.0	-84.42	6.3	-65.0	65.3					
100.0	100.0	101.0	101.0	0.1	0.2	-84.42	6.3	-65.0	65.3	65.0	0.30	218.717		
166.3	166.3	167.3	167.3	0.3	0.3	-84.42	6.3	-65.0	65.3	64.7	0.53	123.166 CC		
200.0	200.0	201.0	201.0	0.3	0.3	-84.42	6.3	-65.0	65.3	64.6	0.65	100.813 ES		
300.0	300.0	300.0	300.0	0.5	0.5	-84.18	6.7	-65.8	66.1	65.1	0.99	66.455		
400.0	400.0	398.8	398.7	0.7	0.7	-83.51	7.7	-68.1	68.6	67.3	1.34	51.122		
500.0	500.0	498.3	498.2	0.8	0.9	113.23	9.3	-71.7	72.7	71.0	1.69	42.994		
600.0	600.0	598.1	597.9	1.0	1.0	115.77	11.0	-75.4	77.7	75.7	2.04	38.053		
700.0	699.9	697.8	697.5	1.2	1.2	119.05	12.6	-79.1	83.7	81.3	2.40	34.919		
800.0	799.7	797.4	797.0	1.4	1.4	122.80	14.3	-82.8	90.9	88.2	2.76	32.964		
900.0	899.4	896.8	896.3	1.6	1.6	126.77	15.9	-86.5	99.5	96.3	3.12	31.850		
924.4	923.7	921.0	920.6	1.7	1.6	127.76	16.3	-87.4	101.8	98.6	3.21	31.686		
1,000.0	999.0	996.0	995.5	1.8	1.8	130.65	17.6	-90.2	109.2	105.7	3.49	31.307		
1,100.0	1,098.5	1,095.3	1,094.7	2.0	2.0	133.92	19.2	-93.9	119.4	115.6	3.85	30.989		
1,200.0	1,198.1	1,194.6	1,193.9	2.3	2.2	136.66	20.8	-97.6	130.0	125.8	4.22	30.810		
1,300.0	1,297.7	1,293.8	1,293.1	2.5	2.3	138.99	22.5	-101.3	140.8	136.2	4.58	30.723		
1,400.0	1,397.3	1,393.1	1,392.2	2.7	2.5	140.98	24.1	-105.0	151.8	146.8	4.95	30.694		
1,500.0	1,496.9	1,492.4	1,491.4	3.0	2.7	142.71	25.8	-108.7	162.9	157.6	5.31	30.705		
1,600.0	1,596.4	1,591.6	1,590.6	3.2	2.9	144.21	27.4	-112.3	174.2	168.6	5.67	30.740		
1,700.0	1,696.0	1,690.9	1,689.8	3.4	3.1	145.53	29.0	-116.0	185.6	179.6	6.03	30.792		
1,800.0	1,795.6	1,790.2	1,789.0	3.6	3.3	146.70	30.7	-119.7	197.1	190.7	6.39	30.854		
1,900.0	1,895.2	1,889.4	1,888.2	3.9	3.5	147.74	32.3	-123.4	208.6	201.9	6.75	30.922		
2,000.0	1,994.8	1,988.7	1,987.3	4.1	3.7	148.67	34.0	-127.1	220.2	213.1	7.11	30.993		
2,100.0	2,094.3	2,088.0	2,086.5	4.3	3.8	149.50	35.6	-130.8	231.9	224.4	7.46	31.065		
2,200.0	2,193.9	2,187.2	2,185.7	4.6	4.0	150.26	37.2	-134.5	243.6	235.8	7.82	31.138		
2,300.0	2,293.5	2,286.5	2,284.9	4.8	4.2	150.95	38.9	-138.2	255.3	247.1	8.18	31.209		
2,400.0	2,393.1	2,385.7	2,384.1	5.0	4.4	151.57	40.5	-141.8	267.1	258.6	8.54	31.279		
2,500.0	2,492.7	2,485.0	2,483.2	5.3	4.6	152.15	42.2	-145.5	278.9	270.0	8.90	31.347		
2,600.0	2,592.3	2,584.3	2,582.4	5.5	4.8	152.67	43.8	-149.2	290.7	281.5	9.25	31.414		
2,700.0	2,691.8	2,683.5	2,681.6	5.7	5.0	153.16	45.4	-152.9	302.6	292.9	9.61	31.477		
2,800.0	2,791.4	2,782.8	2,780.8	6.0	5.1	153.61	47.1	-156.6	314.4	304.5	9.97	31.539		
2,900.0	2,891.0	2,882.1	2,880.0	6.2	5.3	154.02	48.7	-160.3	326.3	316.0	10.33	31.598		
3,000.0	2,990.6	2,981.3	2,979.2	6.5	5.5	154.41	50.3	-164.0	338.2	327.5	10.68	31.655		
3,100.0	3,090.2	3,080.6	3,078.3	6.7	5.7	154.77	52.0	-167.7	350.1	339.1	11.04	31.710		
3,200.0	3,189.7	3,179.9	3,177.5	6.9	5.9	155.11	53.6	-171.4	362.1	350.7	11.40	31.762		
3,300.0	3,289.3	3,279.1	3,276.7	7.2	6.1	155.42	55.3	-175.0	374.0	362.2	11.76	31.813		
3,400.0	3,388.9	3,378.4	3,375.9	7.4	6.3	155.72	56.9	-178.7	385.9	373.8	12.11	31.861		
3,500.0	3,488.5	3,477.7	3,475.1	7.6	6.5	156.00	58.5	-182.4	397.9	385.4	12.47	31.908		
3,600.0	3,588.1	3,576.9	3,574.3	7.9	6.6	156.26	60.2	-186.1	409.9	397.0	12.83	31.953		
3,700.0	3,687.6	3,676.2	3,673.4	8.1	6.8	156.51	61.8	-189.8	421.8	408.7	13.18	31.996		
3,800.0	3,787.2	3,775.4	3,772.6	8.3	7.0	156.74	63.5	-193.5	433.8	420.3	13.54	32.037		
3,900.0	3,886.8	3,874.7	3,871.8	8.6	7.2	156.96	65.1	-197.2	445.8	431.9	13.90	32.077		
4,000.0	3,986.4	3,974.0	3,971.0	8.8	7.4	157.17	66.7	-200.9	457.8	443.6	14.26	32.115		
4,100.0	4,086.0	4,073.2	4,070.2	9.0	7.6	157.37	68.4	-204.5	469.8	455.2	14.61	32.152		
4,200.0	4,185.6	4,172.5	4,169.3	9.3	7.8	157.56	70.0	-208.2	481.8	466.8	14.97	32.187		
4,300.0	4,285.1	4,271.8	4,268.5	9.5	8.0	157.74	71.7	-211.9	493.8	478.5	15.33	32.221		
7,800.0	7,651.4	7,634.4	7,637.7	14.5	15.2	-92.07	-248.3	-332.0	499.4	470.8	28.65	17.430 SF		
7,823.0	7,661.3	7,617.9	7,667.6	14.4	15.1	-90.67	-233.0	-332.0	499.2	470.7	28.50	17.516		
7,850.0	7,671.8	7,798.8	7,659.9	14.4	15.0	-89.01	-215.5	-332.0	499.5	471.2	28.31	17.648		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4C-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				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	1.0	1.0	0.0	0.0	-89.69	0.3	-60.0	60.0					
100.0	100.0	101.0	101.0	0.1	0.2	-89.69	0.3	-60.0	60.0	59.7	0.30	201.038		
200.0	200.0	201.0	201.0	0.3	0.3	-89.69	0.3	-60.0	60.0	59.4	0.65	92.662		
300.0	300.0	301.0	301.0	0.5	0.5	-89.69	0.3	-60.0	60.0	59.0	1.00	60.206		
400.0	400.0	401.0	401.0	0.7	0.7	-89.69	0.3	-60.0	60.0	58.7	1.35	44.588		
500.0	500.0	501.0	501.0	0.8	0.8	106.31	0.3	-60.0	60.2	58.5	1.70	35.535		
600.0	600.0	601.9	601.9	1.0	1.0	109.15	0.8	-59.2	60.3	58.2	2.05	29.417		
700.0	699.9	702.2	702.2	1.2	1.2	114.45	2.0	-57.0	59.9	57.5	2.41	24.868		
702.2	702.1	704.4	704.4	1.2	1.2	114.59	2.0	-57.0	59.9	57.4	2.42	24.784		
800.0	799.7	801.9	801.9	1.4	1.4	121.35	3.4	-54.6	60.6	57.9	2.77	21.888		
900.0	899.4	901.5	901.4	1.6	1.6	129.20	4.8	-52.1	63.4	60.2	3.14	20.199		
924.4	923.7	925.8	925.7	1.7	1.6	131.18	5.1	-51.5	64.4	61.1	3.23	19.956		
1,000.0	999.0	1,001.0	1,000.9	1.8	1.7	137.01	6.1	-49.7	68.1	64.6	3.50	19.455		
1,100.0	1,098.5	1,100.5	1,100.3	2.0	1.9	143.74	7.5	-47.3	73.9	70.1	3.86	19.172		
1,200.0	1,198.1	1,200.0	1,199.7	2.3	2.1	149.43	8.9	-44.8	80.7	76.5	4.21	19.164		
1,300.0	1,297.7	1,299.5	1,299.2	2.5	2.3	154.20	10.3	-42.4	88.1	83.5	4.56	19.316		
1,400.0	1,397.3	1,398.9	1,398.6	2.7	2.5	158.22	11.6	-39.9	96.0	91.1	4.91	19.558		
1,500.0	1,496.9	1,498.4	1,498.1	3.0	2.6	161.61	13.0	-37.5	104.3	99.0	5.25	19.846		
1,600.0	1,596.4	1,597.9	1,597.5	3.2	2.8	164.49	14.4	-35.1	112.9	107.3	5.60	20.154		
1,700.0	1,696.0	1,697.4	1,696.9	3.4	3.0	166.97	15.8	-32.6	121.8	115.8	5.95	20.466		
1,800.0	1,795.6	1,796.9	1,796.4	3.6	3.2	169.10	17.2	-30.2	130.8	124.5	6.30	20.773		
1,900.0	1,895.2	1,896.3	1,895.8	3.9	3.4	170.95	18.5	-27.8	140.0	133.4	6.65	21.069		
2,000.0	1,994.8	1,995.8	1,995.3	4.1	3.5	172.58	19.9	-25.3	149.4	142.4	7.00	21.352		
2,100.0	2,094.3	2,095.3	2,094.7	4.3	3.7	174.01	21.3	-22.9	158.8	151.5	7.35	21.621		
2,200.0	2,193.9	2,194.8	2,194.1	4.6	3.9	175.28	22.7	-20.4	168.4	160.7	7.70	21.875		
2,300.0	2,293.5	2,294.2	2,293.6	4.8	4.1	176.42	24.0	-18.0	178.0	169.9	8.05	22.115		
2,400.0	2,393.1	2,393.7	2,393.0	5.0	4.3	177.44	25.4	-15.6	187.6	179.2	8.40	22.340		
2,500.0	2,492.7	2,493.2	2,492.5	5.3	4.4	178.35	26.8	-13.1	197.4	188.6	8.75	22.553		
2,600.0	2,592.3	2,592.7	2,591.9	5.5	4.6	179.19	28.2	-10.7	207.1	198.0	9.10	22.752		
2,700.0	2,691.8	2,692.2	2,691.3	5.7	4.8	179.94	29.5	-8.3	216.9	207.5	9.46	22.941		
2,800.0	2,791.4	2,791.6	2,790.8	6.0	5.0	-179.37	30.9	-5.8	226.8	217.0	9.81	23.118		
2,900.0	2,891.0	2,891.1	2,890.2	6.2	5.2	-178.73	32.3	-3.4	236.7	226.5	10.16	23.285		
3,000.0	2,990.6	2,990.6	2,989.7	6.5	5.3	-178.15	33.7	-0.9	246.6	236.0	10.52	23.443		
3,100.0	3,090.2	3,090.1	3,089.1	6.7	5.5	-177.61	35.0	1.5	256.5	245.6	10.87	23.592		
3,200.0	3,189.7	3,189.6	3,188.5	6.9	5.7	-177.11	36.4	3.9	266.4	255.2	11.23	23.733		
3,300.0	3,289.3	3,289.0	3,288.0	7.2	5.9	-176.65	37.8	6.4	276.4	264.8	11.58	23.867		
3,400.0	3,388.9	3,388.5	3,387.4	7.4	6.1	-176.22	39.2	8.8	286.4	274.4	11.94	23.994		
3,500.0	3,488.5	3,488.0	3,486.9	7.6	6.2	-175.82	40.6	11.3	296.4	284.1	12.29	24.114		
3,600.0	3,588.1	3,587.5	3,586.3	7.9	6.4	-175.45	41.9	13.7	306.4	293.7	12.65	24.228		
3,700.0	3,687.6	3,687.0	3,685.7	8.1	6.6	-175.09	43.3	16.1	316.4	303.4	13.00	24.337		
3,800.0	3,787.2	3,786.4	3,785.2	8.3	6.8	-174.77	44.7	18.6	326.4	313.1	13.36	24.440		
3,900.0	3,886.8	3,885.9	3,884.6	8.6	7.0	-174.46	46.1	21.0	336.5	322.8	13.71	24.538		
4,000.0	3,986.4	3,985.4	3,984.0	8.8	7.1	-174.16	47.4	23.4	346.5	332.4	14.07	24.632		
4,100.0	4,086.0	4,084.9	4,083.5	9.0	7.3	-173.89	48.8	25.9	356.6	342.2	14.42	24.722		
4,200.0	4,185.6	4,184.3	4,182.9	9.3	7.5	-173.63	50.2	28.3	366.6	351.9	14.78	24.808		
4,300.0	4,285.1	4,283.8	4,282.4	9.5	7.7	-173.38	51.6	30.8	376.7	361.6	15.14	24.890		
4,400.0	4,384.7	4,383.3	4,381.8	9.8	7.9	-173.15	52.9	33.2	386.8	371.3	15.49	24.968		
4,500.0	4,484.3	4,482.8	4,481.2	10.0	8.0	-172.93	54.3	35.6	396.9	381.0	15.85	25.044		
4,600.0	4,583.9	4,582.3	4,580.7	10.2	8.2	-172.72	55.7	38.1	407.0	390.8	16.20	25.116		
4,700.0	4,683.5	4,681.7	4,680.1	10.5	8.4	-172.51	57.1	40.5	417.1	400.5	16.56	25.185		
4,800.0	4,783.0	4,781.2	4,779.6	10.7	8.6	-172.32	58.4	42.9	427.2	410.3	16.92	25.251		
4,900.0	4,882.6	4,880.7	4,879.0	10.9	8.8	-172.14	59.8	45.4	437.3	420.0	17.27	25.315		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4C-32H-O268 - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,000.0	4,982.2	4,980.2	4,978.4	11.2	8.9	-171.97	61.2	47.8	447.4	429.8	17.63	25.377		
5,100.0	5,081.8	5,079.7	5,077.9	11.4	9.1	-171.80	62.6	50.3	457.5	439.5	17.99	25.436		
5,200.0	5,181.4	5,179.1	5,177.3	11.6	9.3	-171.64	64.0	52.7	467.6	449.3	18.34	25.493		
5,300.0	5,281.0	5,278.6	5,276.8	11.9	9.5	-171.49	65.3	55.1	477.7	459.0	18.70	25.548		
5,400.0	5,380.5	5,378.1	5,376.2	12.1	9.7	-171.34	66.7	57.6	487.9	468.8	19.06	25.601		
5,500.0	5,480.1	5,477.6	5,475.6	12.3	9.8	-171.20	68.1	60.0	498.0	478.6	19.41	25.652		
7,000.0	6,973.8	7,831.9	7,429.0	15.9	17.3	141.29	-559.0	107.9	456.3	427.4	28.89	15.796		
7,100.0	7,073.4	7,840.7	7,429.0	16.1	17.4	134.83	-567.8	107.9	357.6	327.6	30.00	11.921		
7,115.3	7,088.6	7,842.1	7,429.0	16.2	17.4	133.76	-569.2	107.9	342.6	312.4	30.18	11.351		
7,150.0	7,123.3	7,844.1	7,429.0	16.2	17.4	139.44	-571.2	107.9	308.4	275.9	32.51	9.488		
7,200.0	7,173.2	7,843.3	7,429.0	16.3	17.4	-126.99	-570.4	107.9	259.4	225.7	33.66	7.705		
7,250.0	7,222.9	7,838.1	7,429.0	16.3	17.4	-127.62	-565.3	107.9	211.0	177.9	33.18	6.361		
7,300.0	7,272.0	7,828.7	7,429.0	16.2	17.2	-128.94	-555.8	107.9	164.1	131.5	32.62	5.032		
7,350.0	7,320.1	7,815.0	7,429.0	16.1	17.1	-125.78	-542.1	107.9	119.9	87.5	32.37	3.704		
7,400.0	7,366.8	7,797.1	7,429.0	16.0	16.9	-116.82	-524.3	107.9	81.1	48.7	32.41	2.504		
7,450.0	7,411.7	7,775.3	7,429.0	15.8	16.6	-100.14	-502.4	107.9	56.6	24.4	32.19	1.759		
7,467.3	7,426.8	7,766.8	7,429.0	15.8	16.5	-92.48	-493.9	107.9	54.6	22.8	31.79	1.717	CC, ES, SF	
7,500.0	7,454.6	7,750.0	7,428.9	15.7	16.4	-76.87	-477.1	107.9	61.3	30.9	30.34	2.019		
7,550.0	7,495.0	7,724.4	7,428.0	15.5	16.1	-55.87	-451.6	107.9	88.3	61.0	27.27	3.237		
7,600.0	7,532.8	7,700.0	7,426.0	15.2	15.8	-41.43	-427.2	107.8	122.5	97.9	24.65	4.971		
7,650.0	7,567.6	7,673.4	7,422.7	15.0	15.6	-31.39	-400.9	107.7	158.4	135.8	22.68	6.986		
7,700.0	7,599.1	7,650.0	7,418.7	14.8	15.3	-25.24	-377.8	107.6	194.2	173.0	21.27	9.130		
7,750.0	7,627.1	7,622.6	7,412.9	14.7	15.1	-20.60	-351.0	107.5	229.2	209.1	20.08	11.416		
7,800.0	7,651.4	7,600.0	7,407.2	14.5	14.9	-17.60	-329.2	107.4	263.1	244.0	19.11	13.765		
7,850.0	7,671.8	7,571.9	7,398.8	14.4	14.7	-15.13	-302.4	107.2	295.5	277.3	18.26	16.184		
7,900.0	7,688.1	7,550.0	7,391.4	14.3	14.5	-13.46	-281.7	107.0	326.5	308.9	17.60	18.553		
7,950.0	7,700.3	7,521.4	7,380.6	14.2	14.3	-12.00	-255.2	106.7	355.9	338.8	17.09	20.828		
8,000.0	7,708.2	7,500.0	7,371.6	14.3	14.1	-10.98	-235.8	106.5	383.6	366.8	16.80	22.840		
8,050.0	7,711.8	7,470.8	7,358.2	14.3	13.9	-10.06	-209.9	106.2	409.5	392.9	16.69	24.535		
8,065.9	7,712.0	7,462.8	7,354.3	14.4	13.9	-9.83	-202.9	106.1	417.4	400.7	16.71	24.984		
8,100.0	7,712.0	7,450.0	7,347.9	14.4	13.8	-9.68	-191.8	105.9	434.6	417.8	16.76	25.922		
8,200.0	7,712.0	7,400.0	7,320.4	14.8	13.5	-9.09	-150.1	105.2	489.5	472.6	16.91	28.952		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4D-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	1.0	1.0	0.0	0.0	-83.47	6.3	-55.0	55.3					
100.0	100.0	101.0	101.0	0.1	0.2	-83.47	6.3	-55.0	55.3	55.0	0.30	185.378		
200.0	200.0	201.0	201.0	0.3	0.3	-83.47	6.3	-55.0	55.3	54.7	0.65	85.444		
300.0	300.0	301.0	301.0	0.5	0.5	-83.47	6.3	-55.0	55.3	54.3	1.00	55.516		
400.0	400.0	401.0	401.0	0.7	0.7	-83.47	6.3	-55.0	55.3	54.0	1.35	41.115		
500.0	500.0	501.0	501.0	0.8	0.8	112.57	6.3	-55.0	55.7	54.0	1.70	32.832		
600.0	600.0	601.9	601.9	1.0	1.0	115.40	6.5	-54.1	55.9	53.8	2.05	27.282		
700.0	699.9	702.6	702.6	1.2	1.2	120.61	7.1	-51.5	55.6	53.1	2.41	23.086		
791.5	791.2	794.6	794.5	1.4	1.4	127.58	8.1	-47.6	55.3	52.6	2.74	20.188 CC		
800.0	799.7	803.2	803.0	1.4	1.4	128.34	8.2	-47.2	55.3	52.5	2.77	19.966 ES		
900.0	899.4	903.4	903.1	1.6	1.6	138.45	9.6	-41.2	56.1	53.0	3.14	17.875		
924.4	923.7	927.8	927.4	1.7	1.6	141.21	10.1	-39.4	56.6	53.4	3.23	17.527		
1,000.0	999.0	1,002.9	1,002.3	1.8	1.8	149.60	11.4	-34.0	58.9	55.4	3.51	16.800		
1,100.0	1,098.5	1,102.2	1,101.3	2.0	2.0	159.47	13.1	-26.7	63.8	59.9	3.88	16.447		
1,200.0	1,198.1	1,201.6	1,200.4	2.3	2.2	167.75	14.9	-19.4	70.2	66.0	4.25	16.523		
1,300.0	1,297.7	1,300.9	1,299.4	2.5	2.4	174.53	16.6	-12.2	77.9	73.3	4.63	16.835		
1,400.0	1,397.3	1,400.2	1,398.5	2.7	2.6	-179.96	18.4	-4.9	86.5	81.5	5.01	17.263		
1,500.0	1,496.9	1,499.5	1,497.5	3.0	2.8	-175.47	20.2	2.3	95.7	90.3	5.40	17.739		
1,600.0	1,596.4	1,598.8	1,596.5	3.2	3.0	-171.79	21.9	9.6	105.4	99.7	5.79	18.226		
1,700.0	1,696.0	1,698.1	1,695.6	3.4	3.2	-168.73	23.7	16.8	115.5	109.3	6.18	18.702		
1,800.0	1,795.6	1,797.5	1,794.6	3.6	3.4	-166.17	25.4	24.1	125.9	119.3	6.57	19.157		
1,900.0	1,895.2	1,896.8	1,893.6	3.9	3.7	-164.00	27.2	31.4	136.4	129.4	6.96	19.587		
2,000.0	1,994.8	1,996.1	1,992.7	4.1	3.9	-162.15	28.9	38.6	147.1	139.8	7.36	19.990		
2,100.0	2,094.3	2,095.4	2,091.7	4.3	4.1	-160.54	30.7	45.9	158.0	150.2	7.76	20.366		
2,200.0	2,193.9	2,194.7	2,190.8	4.6	4.3	-159.15	32.5	53.1	168.9	160.8	8.15	20.717		
2,300.0	2,293.5	2,294.1	2,289.8	4.8	4.5	-157.92	34.2	60.4	180.0	171.4	8.55	21.044		
2,400.0	2,393.1	2,393.4	2,388.8	5.0	4.7	-156.84	36.0	67.6	191.1	182.2	8.95	21.348		
2,500.0	2,492.7	2,492.7	2,487.9	5.3	4.9	-155.87	37.7	74.9	202.3	192.9	9.35	21.632		
2,600.0	2,592.3	2,592.0	2,586.9	5.5	5.2	-155.01	39.5	82.2	213.5	203.8	9.75	21.896		
2,700.0	2,691.8	2,691.3	2,685.9	5.7	5.4	-154.23	41.2	89.4	224.8	214.6	10.15	22.144		
2,800.0	2,791.4	2,790.7	2,785.0	6.0	5.6	-153.53	43.0	96.7	236.1	225.5	10.55	22.376		
2,900.0	2,891.0	2,890.0	2,884.0	6.2	5.8	-152.89	44.7	103.9	247.4	236.5	10.95	22.593		
3,000.0	2,990.6	2,989.3	2,983.1	6.5	6.0	-152.31	46.5	111.2	258.8	247.5	11.35	22.796		
3,100.0	3,090.2	3,088.6	3,082.1	6.7	6.2	-151.78	48.3	118.4	270.2	258.4	11.75	22.988		
3,200.0	3,189.7	3,187.9	3,181.1	6.9	6.5	-151.29	50.0	125.7	281.6	269.5	12.16	23.168		
3,300.0	3,289.3	3,287.2	3,280.2	7.2	6.7	-150.83	51.8	133.0	293.0	280.5	12.56	23.338		
3,400.0	3,388.9	3,386.6	3,379.2	7.4	6.9	-150.42	53.5	140.2	304.5	291.5	12.96	23.499		
3,500.0	3,488.5	3,485.9	3,478.2	7.6	7.1	-150.03	55.3	147.5	316.0	302.6	13.36	23.651		
3,600.0	3,588.1	3,585.2	3,577.3	7.9	7.3	-149.67	57.0	154.7	327.4	313.7	13.76	23.795		
3,700.0	3,687.6	3,684.5	3,676.3	8.1	7.5	-149.33	58.8	162.0	338.9	324.8	14.16	23.931		
3,800.0	3,787.2	3,783.8	3,775.4	8.3	7.8	-149.02	60.6	169.2	350.4	335.9	14.56	24.060		
3,900.0	3,886.8	3,883.2	3,874.4	8.6	8.0	-148.72	62.3	176.5	361.9	347.0	14.97	24.183		
4,000.0	3,986.4	3,982.5	3,973.4	8.8	8.2	-148.45	64.1	183.8	373.5	358.1	15.37	24.300		
4,100.0	4,086.0	4,081.8	4,072.5	9.0	8.4	-148.19	65.8	191.0	385.0	369.2	15.77	24.412		
4,200.0	4,185.6	4,181.1	4,171.5	9.3	8.6	-147.94	67.6	198.3	396.5	380.3	16.17	24.518		
4,300.0	4,285.1	4,280.4	4,270.5	9.5	8.8	-147.71	69.3	205.5	408.1	391.5	16.57	24.619		
4,400.0	4,384.7	4,379.8	4,369.6	9.8	9.0	-147.49	71.1	212.8	419.6	402.6	16.98	24.716		
4,500.0	4,484.3	4,479.1	4,468.6	10.0	9.3	-147.29	72.8	220.0	431.2	413.8	17.38	24.809		
4,600.0	4,583.9	4,578.4	4,567.7	10.2	9.5	-147.09	74.6	227.3	442.7	424.9	17.78	24.898		
4,700.0	4,683.5	4,677.7	4,666.7	10.5	9.7	-146.91	76.4	234.6	454.3	436.1	18.18	24.983		
4,800.0	4,783.0	4,777.0	4,765.7	10.7	9.9	-146.73	78.1	241.8	465.8	447.3	18.59	25.064		
4,900.0	4,882.6	4,876.3	4,864.8	10.9	10.1	-146.56	79.9	249.1	477.4	458.4	18.99	25.143		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4D-32H-O268 - Hz - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,000.0	4,982.2	4,975.7	4,963.8	11.2	10.3	-146.40	81.6	256.3	489.0	469.6	19.39	25.218	
7,350.0	7,320.1	8,147.9	7,712.0	16.1	19.6	109.41	-542.1	457.7	491.3	461.3	29.99	16.386	
7,400.0	7,366.8	8,130.0	7,712.0	16.0	19.4	112.55	-524.3	457.7	454.4	425.0	29.40	15.457	
7,450.0	7,411.7	8,108.2	7,712.0	15.8	19.2	114.09	-502.4	457.7	420.7	391.7	28.94	14.534	
7,500.0	7,454.6	8,082.5	7,712.0	15.7	18.9	114.35	-476.7	457.7	390.6	362.0	28.61	13.651	
7,550.0	7,495.0	8,049.4	7,711.9	15.5	18.6	113.08	-443.6	457.7	364.6	336.2	28.43	12.823	
7,600.0	7,532.8	8,000.4	7,709.1	15.2	18.2	109.12	-394.7	457.5	341.8	313.3	28.51	11.991	
7,650.0	7,567.6	7,955.9	7,702.8	15.0	17.8	105.07	-350.7	457.0	322.3	293.7	28.57	11.280	
7,700.0	7,599.1	7,914.8	7,694.1	14.8	17.5	100.83	-310.5	456.4	306.6	278.0	28.61	10.717	
7,750.0	7,627.1	7,876.2	7,683.3	14.7	17.2	96.36	-273.5	455.6	295.4	266.8	28.60	10.326	
7,800.0	7,651.4	7,839.6	7,670.8	14.5	17.0	91.64	-239.1	454.7	288.7	260.2	28.52	10.126	
7,845.8	7,670.2	7,807.4	7,658.0	14.4	16.8	87.14	-209.6	453.7	286.8	258.5	28.34	10.119 SF	
7,850.0	7,671.8	7,804.5	7,656.7	14.4	16.8	86.72	-207.0	453.7	286.8	258.5	28.32	10.128	
7,900.0	7,688.1	7,770.6	7,641.3	14.3	16.6	81.64	-176.8	452.5	289.4	261.4	28.00	10.334	
7,950.0	7,700.3	7,737.7	7,624.7	14.2	16.4	76.50	-148.5	451.3	295.9	268.4	27.56	10.738	
8,000.0	7,708.2	7,705.7	7,607.0	14.3	16.3	71.42	-121.8	450.0	305.8	278.8	27.01	11.320	
8,050.0	7,711.8	7,674.3	7,588.2	14.3	16.2	66.48	-96.7	448.6	318.3	291.9	26.42	12.045	
8,065.9	7,712.0	7,664.4	7,582.0	14.4	16.1	64.95	-89.0	448.2	322.7	296.5	26.24	12.300	
8,100.0	7,712.0	7,643.9	7,568.8	14.4	16.1	62.70	-73.4	447.2	333.2	307.2	25.99	12.821	
8,200.0	7,712.0	7,590.7	7,531.8	14.8	15.9	56.79	-35.2	444.5	372.8	347.4	25.40	14.678	
8,300.0	7,712.0	7,550.0	7,501.3	15.4	15.8	52.38	-8.4	442.3	424.7	399.6	25.12	16.909	
8,400.0	7,712.0	7,500.0	7,461.3	16.2	15.7	47.21	21.4	439.3	486.5	461.8	24.70	19.697	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4E-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	1.0	1.0	0.0	0.0	-89.69	0.2	-40.0	40.0					
100.0	100.0	101.0	101.0	0.1	0.2	-89.69	0.2	-40.0	40.0	39.7	0.30	134.025		
200.0	200.0	201.0	201.0	0.3	0.3	-89.69	0.2	-40.0	40.0	39.4	0.65	61.774		
300.0	300.0	301.0	301.0	0.5	0.5	-89.69	0.2	-40.0	40.0	39.0	1.00	40.137		
400.0	400.0	401.0	401.0	0.7	0.7	-89.69	0.2	-40.0	40.0	38.7	1.35	29.725 CC		
500.0	500.0	501.0	501.0	0.8	0.8	106.71	0.2	-40.0	40.2	38.5	1.70	23.739 ES		
600.0	600.0	601.0	601.0	1.0	1.0	110.20	0.2	-40.0	41.1	39.0	2.05	20.062		
700.0	699.9	700.9	700.9	1.2	1.2	115.67	0.2	-40.0	42.8	40.4	2.40	17.796		
800.0	799.7	800.7	800.7	1.4	1.4	122.54	0.2	-40.0	45.8	43.0	2.76	16.552		
900.0	899.4	900.4	900.4	1.6	1.5	130.03	0.2	-40.0	50.4	47.3	3.13	16.125		
924.4	923.7	924.9	924.9	1.7	1.6	131.91	0.2	-39.9	51.8	48.6	3.21	16.116		
1,000.0	999.0	1,000.7	1,000.7	1.8	1.7	137.70	0.4	-39.1	56.1	52.6	3.49	16.082		
1,100.0	1,098.5	1,101.0	1,100.9	2.0	1.9	145.15	0.8	-36.5	61.4	57.6	3.84	16.000		
1,200.0	1,198.1	1,201.2	1,201.0	2.3	2.1	152.56	1.6	-32.2	66.6	62.4	4.18	15.927		
1,300.0	1,297.7	1,301.2	1,300.9	2.5	2.3	160.03	2.6	-26.2	72.0	67.5	4.53	15.905 SF		
1,400.0	1,397.3	1,401.0	1,400.4	2.7	2.5	167.57	3.9	-18.4	77.9	73.1	4.88	15.959		
1,500.0	1,496.9	1,500.5	1,499.5	3.0	2.7	175.08	5.6	-9.0	84.7	79.4	5.26	16.108		
1,600.0	1,596.4	1,599.7	1,598.0	3.2	2.9	-177.59	7.5	2.0	92.5	86.9	5.65	16.371		
1,700.0	1,696.0	1,698.7	1,696.3	3.4	3.1	-171.22	9.5	13.4	101.7	95.6	6.06	16.765		
1,800.0	1,795.6	1,797.7	1,794.6	3.6	3.4	-165.96	11.4	24.9	111.8	105.4	6.49	17.238		
1,900.0	1,895.2	1,896.7	1,892.9	3.9	3.6	-161.59	13.4	36.3	122.8	115.9	6.92	17.748		
2,000.0	1,994.8	1,995.7	1,991.3	4.1	3.8	-157.95	15.4	47.7	134.4	127.0	7.36	18.268		
2,100.0	2,094.3	2,094.7	2,089.6	4.3	4.1	-154.90	17.4	59.2	146.4	138.6	7.79	18.782		
2,200.0	2,193.9	2,193.7	2,187.9	4.6	4.3	-152.31	19.3	70.6	158.8	150.5	8.23	19.282		
2,300.0	2,293.5	2,292.7	2,286.2	4.8	4.6	-150.10	21.3	82.0	171.4	162.7	8.67	19.762		
2,400.0	2,393.1	2,391.7	2,384.5	5.0	4.8	-148.19	23.3	93.5	184.3	175.2	9.11	20.220		
2,500.0	2,492.7	2,490.7	2,482.8	5.3	5.1	-146.54	25.3	104.9	197.3	187.8	9.55	20.654		
2,600.0	2,592.3	2,589.7	2,581.1	5.5	5.3	-145.09	27.2	116.3	210.5	200.5	9.99	21.065		
2,700.0	2,691.8	2,688.7	2,679.5	5.7	5.6	-143.81	29.2	127.8	223.8	213.4	10.43	21.453		
2,800.0	2,791.4	2,787.7	2,777.8	6.0	5.9	-142.67	31.2	139.2	237.2	226.3	10.87	21.820		
2,900.0	2,891.0	2,886.7	2,876.1	6.2	6.1	-141.66	33.2	150.6	250.7	239.3	11.31	22.166		
3,000.0	2,990.6	2,985.7	2,974.4	6.5	6.4	-140.75	35.2	162.1	264.2	252.4	11.75	22.493		
3,100.0	3,090.2	3,084.7	3,072.7	6.7	6.6	-139.92	37.1	173.5	277.8	265.6	12.18	22.802		
3,200.0	3,189.7	3,183.7	3,171.0	6.9	6.9	-139.18	39.1	184.9	291.4	278.8	12.62	23.094		
3,300.0	3,289.3	3,282.7	3,269.3	7.2	7.1	-138.50	41.1	196.4	305.1	292.1	13.06	23.371		
3,400.0	3,388.9	3,381.7	3,367.6	7.4	7.4	-137.88	43.1	207.8	318.9	305.4	13.49	23.632		
3,500.0	3,488.5	3,480.7	3,466.0	7.6	7.7	-137.31	45.0	219.3	332.7	318.7	13.93	23.880		
3,600.0	3,588.1	3,579.7	3,564.3	7.9	7.9	-136.79	47.0	230.7	346.5	332.1	14.37	24.115		
3,700.0	3,687.6	3,678.6	3,662.6	8.1	8.2	-136.30	49.0	242.1	360.3	345.5	14.80	24.339		
3,800.0	3,787.2	3,777.6	3,760.9	8.3	8.5	-135.86	51.0	253.6	374.1	358.9	15.24	24.551		
3,900.0	3,886.8	3,876.6	3,859.2	8.6	8.7	-135.44	52.9	265.0	388.0	372.3	15.67	24.754		
4,000.0	3,986.4	3,975.6	3,957.5	8.8	9.0	-135.05	54.9	276.4	401.9	385.8	16.11	24.946		
4,100.0	4,086.0	4,074.6	4,055.8	9.0	9.2	-134.69	56.9	287.9	415.8	399.2	16.55	25.130		
4,200.0	4,185.6	4,173.6	4,154.1	9.3	9.5	-134.35	58.9	299.3	429.7	412.7	16.98	25.305		
4,300.0	4,285.1	4,272.6	4,252.5	9.5	9.8	-134.04	60.9	310.7	443.6	426.2	17.42	25.473		
4,400.0	4,384.7	4,371.6	4,350.8	9.8	10.0	-133.74	62.8	322.2	457.6	439.7	17.85	25.633		
4,500.0	4,484.3	4,470.6	4,449.1	10.0	10.3	-133.46	64.8	333.6	471.5	453.3	18.29	25.786		
4,600.0	4,583.9	4,569.6	4,547.4	10.2	10.6	-133.20	66.8	345.0	485.5	466.8	18.72	25.933		
4,700.0	4,683.5	4,668.6	4,645.7	10.5	10.8	-132.95	68.8	356.5	499.5	480.3	19.16	26.073		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4F-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	1.0	1.0	0.0	0.0	-79.97	6.2	-35.0	35.5					
100.0	100.0	101.0	101.0	0.1	0.2	-79.97	6.2	-35.0	35.5	0.30	118.983			
200.0	200.0	201.0	201.0	0.3	0.3	-79.97	6.2	-35.0	35.5	0.65	54.841			
300.0	300.0	301.0	301.0	0.5	0.5	-79.97	6.2	-35.0	35.5	1.00	35.632			
400.0	400.0	401.0	401.0	0.7	0.7	-79.97	6.2	-35.0	35.5	1.35	26.389 CC			
500.0	500.0	501.0	501.0	0.8	0.8	116.49	6.2	-35.0	35.9	1.70	21.173			
600.0	600.0	601.7	601.7	1.0	1.0	122.47	7.3	-33.6	36.1	2.05	17.634			
619.5	619.4	621.3	621.2	1.1	1.1	124.45	7.8	-33.0	36.1	2.12	17.041 ES			
700.0	699.9	701.9	701.7	1.2	1.2	135.36	10.8	-29.5	36.5	2.41	15.136			
800.0	799.7	801.3	800.8	1.4	1.4	153.54	16.4	-22.8	39.9	2.80	14.276 SF			
900.0	899.4	899.7	898.4	1.6	1.7	171.92	24.1	-13.6	49.1	3.19	15.406			
924.4	923.7	923.8	922.3	1.7	1.7	175.82	26.2	-11.0	52.4	3.29	15.930			
1,000.0	999.0	998.6	996.4	1.8	1.9	-174.42	32.3	-2.5	63.1	3.58	17.613			
1,100.0	1,098.5	1,097.8	1,094.5	2.0	2.2	-165.11	39.4	9.9	78.2	3.99	19.598			
1,200.0	1,198.1	1,197.1	1,192.7	2.3	2.5	-158.07	45.2	23.5	93.5	4.40	21.226			
1,300.0	1,297.7	1,296.4	1,290.8	2.5	2.8	-152.30	49.8	38.3	108.8	4.83	22.521			
1,400.0	1,397.3	1,395.7	1,388.7	2.7	3.1	-147.28	53.2	54.3	124.2	5.27	23.543			
1,500.0	1,496.9	1,494.4	1,485.9	3.0	3.4	-142.89	55.5	71.1	139.7	5.72	24.420			
1,600.0	1,596.4	1,592.7	1,582.7	3.2	3.7	-139.35	57.8	88.0	155.8	6.17	25.262			
1,700.0	1,696.0	1,691.0	1,679.5	3.4	4.0	-136.48	60.1	104.9	172.3	6.61	26.057			
1,800.0	1,795.6	1,789.3	1,776.3	3.6	4.4	-134.11	62.3	121.8	189.2	7.06	26.797			
1,900.0	1,895.2	1,887.5	1,873.1	3.9	4.7	-132.14	64.6	138.7	206.4	7.51	27.481			
2,000.0	1,994.8	1,985.8	1,969.9	4.1	5.0	-130.46	66.8	155.6	223.8	7.96	28.111			
2,100.0	2,094.3	2,084.1	2,066.7	4.3	5.4	-129.03	69.1	172.5	241.3	8.41	28.692			
2,200.0	2,193.9	2,182.4	2,163.5	4.6	5.7	-127.79	71.3	189.3	259.0	8.86	29.228			
2,300.0	2,293.5	2,280.7	2,260.3	4.8	6.0	-126.71	73.6	206.2	276.8	9.31	29.721			
2,400.0	2,393.1	2,379.0	2,357.1	5.0	6.4	-125.76	75.8	223.1	294.6	9.76	30.177			
2,500.0	2,492.7	2,477.2	2,453.9	5.3	6.7	-124.92	78.1	240.0	312.5	10.21	30.599			
2,600.0	2,592.3	2,575.5	2,550.7	5.5	7.1	-124.17	80.3	256.9	330.5	10.66	30.990			
2,700.0	2,691.8	2,673.8	2,647.5	5.7	7.4	-123.50	82.6	273.8	348.5	11.12	31.354			
2,800.0	2,791.4	2,772.1	2,744.3	6.0	7.7	-122.89	84.8	290.7	366.6	11.57	31.692			
2,900.0	2,891.0	2,870.4	2,841.1	6.2	8.1	-122.35	87.1	307.6	384.7	12.02	32.008			
3,000.0	2,990.6	2,968.7	2,937.9	6.5	8.4	-121.85	89.3	324.4	402.8	12.47	32.303			
3,100.0	3,090.2	3,066.9	3,034.7	6.7	8.8	-121.39	91.6	341.3	421.0	12.92	32.579			
3,200.0	3,189.7	3,165.2	3,131.5	6.9	9.1	-120.97	93.8	358.2	439.2	13.37	32.839			
3,300.0	3,289.3	3,263.5	3,228.3	7.2	9.5	-120.58	96.1	375.1	457.4	13.83	33.082			
3,400.0	3,388.9	3,361.8	3,325.1	7.4	9.8	-120.23	98.4	392.0	475.6	14.28	33.312			
3,500.0	3,488.5	3,460.1	3,421.9	7.6	10.1	-119.90	100.6	408.9	493.9	14.73	33.528			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4G-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	1.0	1.0	0.0	0.0	-89.69	0.2	-30.0	30.0					
100.0	100.0	101.0	101.0	0.1	0.2	-89.69	0.2	-30.0	30.0	29.7	0.30	100.519		
200.0	200.0	201.0	201.0	0.3	0.3	-89.69	0.2	-30.0	30.0	29.4	0.65	46.331		
300.0	300.0	301.0	301.0	0.5	0.5	-89.69	0.2	-30.0	30.0	29.0	1.00	30.103		
400.0	400.0	401.0	401.0	0.7	0.7	-89.69	0.2	-30.0	30.0	28.7	1.35	22.294 CC		
500.0	500.0	501.0	501.0	0.8	0.8	107.10	0.2	-30.0	30.2	28.5	1.70	17.842 ES		
600.0	600.0	601.0	601.0	1.0	1.0	111.70	0.2	-30.0	31.1	29.1	2.05	15.200		
700.0	699.9	700.9	700.9	1.2	1.2	118.74	0.2	-30.0	33.0	30.6	2.40	13.725		
800.0	799.7	801.3	801.3	1.4	1.4	127.48	0.1	-29.5	35.9	33.1	2.76	12.992		
900.0	899.4	902.2	902.1	1.6	1.6	138.86	0.0	-26.0	38.1	35.0	3.12	12.206		
924.4	923.7	926.8	926.6	1.7	1.6	142.10	0.0	-24.6	38.6	35.4	3.21	12.036		
1,000.0	999.0	1,002.8	1,002.4	1.8	1.7	152.90	-0.2	-18.9	40.1	36.6	3.47	11.552		
1,100.0	1,098.5	1,102.9	1,102.0	2.0	2.0	168.91	-0.6	-8.3	42.5	38.7	3.84	11.071		
1,200.0	1,198.1	1,202.4	1,200.6	2.3	2.2	-174.00	-1.1	5.4	46.9	42.7	4.26	11.026 SF		
1,300.0	1,297.7	1,301.5	1,298.5	2.5	2.5	-158.87	-2.2	20.8	54.4	49.7	4.74	11.487		
1,400.0	1,397.3	1,400.3	1,395.7	2.7	2.8	-146.42	-3.7	37.8	64.7	59.4	5.25	12.322		
1,500.0	1,496.9	1,498.6	1,492.2	3.0	3.1	-136.43	-5.7	56.3	77.4	71.6	5.77	13.416		
1,600.0	1,596.4	1,596.3	1,587.9	3.2	3.4	-128.41	-8.3	76.3	92.4	86.1	6.29	14.687		
1,700.0	1,696.0	1,693.6	1,682.8	3.4	3.8	-121.90	-11.3	97.7	109.3	102.5	6.80	16.078		
1,800.0	1,795.6	1,790.6	1,777.0	3.6	4.2	-116.56	-14.8	120.4	128.0	120.7	7.29	17.557		
1,900.0	1,895.2	1,888.2	1,871.7	3.9	4.6	-112.44	-18.4	143.7	147.8	140.0	7.78	19.008		
2,000.0	1,994.8	1,985.7	1,966.3	4.1	5.1	-109.31	-22.0	166.9	168.1	159.9	8.25	20.376		
2,100.0	2,094.3	2,083.3	2,061.0	4.3	5.5	-106.85	-25.6	190.1	188.8	180.1	8.72	21.650		
2,200.0	2,193.9	2,180.8	2,155.7	4.6	5.9	-104.87	-29.2	213.3	209.8	200.6	9.19	22.830		
2,300.0	2,293.5	2,278.3	2,250.4	4.8	6.4	-103.26	-32.8	236.6	231.0	221.3	9.66	23.919		
2,400.0	2,393.1	2,375.9	2,345.0	5.0	6.8	-101.92	-36.4	259.8	252.3	242.2	10.12	24.925		
2,500.0	2,492.7	2,473.4	2,439.7	5.3	7.2	-100.78	-40.0	283.0	273.7	263.2	10.59	25.855		
2,600.0	2,592.3	2,571.0	2,534.4	5.5	7.7	-99.81	-43.6	306.3	295.3	284.2	11.05	26.715		
2,700.0	2,691.8	2,668.5	2,629.0	5.7	8.1	-98.98	-47.2	329.5	316.9	305.3	11.52	27.513		
2,800.0	2,791.4	2,766.1	2,723.7	6.0	8.6	-98.24	-50.8	352.7	338.5	326.5	11.98	28.254		
2,900.0	2,891.0	2,863.6	2,818.4	6.2	9.0	-97.60	-54.4	375.9	360.2	347.8	12.45	28.943		
3,000.0	2,990.6	2,961.2	2,913.0	6.5	9.4	-97.03	-58.0	399.2	381.9	369.0	12.91	29.586		
3,100.0	3,090.2	3,058.7	3,007.7	6.7	9.9	-96.52	-61.6	422.4	403.7	390.3	13.37	30.186		
3,200.0	3,189.7	3,156.2	3,102.4	6.9	10.3	-96.07	-65.2	445.6	425.5	411.6	13.84	30.748		
3,300.0	3,289.3	3,253.8	3,197.0	7.2	10.8	-95.65	-68.8	468.8	447.3	433.0	14.30	31.276		
3,400.0	3,388.9	3,351.3	3,291.7	7.4	11.2	-95.28	-72.4	492.1	469.1	454.4	14.77	31.771		
3,500.0	3,488.5	3,448.9	3,386.4	7.6	11.7	-94.94	-76.0	515.3	491.0	475.7	15.23	32.237		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4H-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	1.0	1.0	0.0	0.0	-76.20	6.1	-25.0	25.7					
100.0	100.0	101.0	101.0	0.1	0.2	-76.20	6.1	-25.0	25.7	25.4	0.30	86.144		
200.0	200.0	201.0	201.0	0.3	0.3	-76.20	6.1	-25.0	25.7	25.1	0.65	39.705		
300.0	300.0	301.0	301.0	0.5	0.5	-76.20	6.1	-25.0	25.7	24.7	1.00	25.798		
400.0	400.0	401.0	401.0	0.7	0.7	-76.20	6.1	-25.0	25.7	24.4	1.35	19.106 CC, ES		
500.0	500.0	501.0	501.0	0.8	0.8	120.67	6.1	-25.0	26.1	24.4	1.70	15.424		
600.0	600.0	601.0	601.0	1.0	1.0	125.35	6.1	-25.0	27.6	25.5	2.05	13.475		
700.0	699.9	700.9	700.9	1.2	1.2	132.06	6.1	-25.0	30.3	27.9	2.40	12.630		
800.0	799.7	801.2	801.1	1.4	1.4	140.48	6.2	-24.1	34.0	31.2	2.75	12.343 SF		
900.0	899.4	901.3	901.3	1.6	1.5	150.37	6.3	-21.4	38.6	35.4	3.11	12.415		
924.4	923.7	925.7	925.7	1.7	1.6	152.89	6.4	-20.5	39.9	36.7	3.19	12.500		
1,000.0	999.0	1,001.3	1,001.2	1.8	1.7	160.48	6.5	-17.1	44.2	40.8	3.45	12.799		
1,100.0	1,098.5	1,101.2	1,100.9	2.0	1.9	169.94	6.8	-10.9	50.3	46.5	3.81	13.201		
1,200.0	1,198.1	1,200.9	1,200.3	2.3	2.1	178.88	7.2	-3.1	57.0	52.8	4.18	13.635		
1,300.0	1,297.7	1,300.4	1,299.3	2.5	2.3	-172.67	7.7	6.4	64.6	60.0	4.57	14.124		
1,400.0	1,397.3	1,399.6	1,397.8	2.7	2.6	-164.77	8.3	17.6	73.3	68.4	4.99	14.686		
1,500.0	1,496.9	1,498.4	1,495.8	3.0	2.8	-157.49	8.9	30.5	83.5	78.0	5.44	15.335		
1,600.0	1,596.4	1,596.8	1,593.2	3.2	3.1	-150.88	9.6	45.0	95.1	89.2	5.92	16.081		
1,700.0	1,696.0	1,694.8	1,689.8	3.4	3.4	-144.94	10.4	61.1	108.4	102.0	6.41	16.929		
1,800.0	1,795.6	1,792.2	1,785.6	3.6	3.7	-139.65	11.3	78.7	123.4	116.5	6.90	17.876		
1,900.0	1,895.2	1,889.1	1,880.6	3.9	4.0	-134.96	12.2	97.8	140.1	132.7	7.41	18.917		
2,000.0	1,994.8	1,985.4	1,974.6	4.1	4.4	-130.81	13.3	118.4	158.6	150.6	7.91	20.042		
2,100.0	2,094.3	2,080.9	2,067.6	4.3	4.8	-127.13	14.4	140.4	178.7	170.3	8.41	21.242		
2,200.0	2,193.9	2,175.8	2,159.5	4.6	5.2	-123.88	15.5	163.8	200.6	191.7	8.91	22.507		
2,300.0	2,293.5	2,269.9	2,250.4	4.8	5.6	-121.00	16.8	188.5	224.1	214.7	9.40	23.828		
2,400.0	2,393.1	2,363.5	2,340.3	5.0	6.1	-118.42	18.1	214.5	249.3	239.4	9.89	25.204		
2,500.0	2,492.7	2,459.6	2,432.3	5.3	6.6	-116.17	19.4	241.8	275.4	265.0	10.38	26.540		
2,600.0	2,592.3	2,555.6	2,524.4	5.5	7.1	-114.31	20.8	269.2	301.8	291.0	10.86	27.802		
2,700.0	2,691.8	2,651.6	2,616.4	5.7	7.6	-112.74	22.1	296.5	328.5	317.2	11.33	28.991		
2,800.0	2,791.4	2,747.6	2,708.4	6.0	8.1	-111.41	23.5	323.8	355.4	343.6	11.80	30.108		
2,900.0	2,891.0	2,843.6	2,800.5	6.2	8.6	-110.27	24.8	351.1	382.4	370.1	12.27	31.158		
3,000.0	2,990.6	2,939.6	2,892.5	6.5	9.1	-109.28	26.2	378.4	409.6	396.8	12.74	32.144		
3,100.0	3,090.2	3,035.7	2,984.6	6.7	9.6	-108.41	27.6	405.7	436.8	423.6	13.21	33.072		
3,200.0	3,189.7	3,131.7	3,076.6	6.9	10.1	-107.64	28.9	433.0	464.1	450.5	13.67	33.945		
3,300.0	3,289.3	3,227.7	3,168.6	7.2	10.6	-106.96	30.3	460.3	491.5	477.4	14.14	34.767		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4I-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				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	-89.69	0.1	-10.0	10.0					
100.0	100.0	100.0	100.0	0.1	0.1	-89.69	0.1	-10.0	10.0	9.7	0.30	33.703		
200.0	200.0	200.0	200.0	0.3	0.3	-89.69	0.1	-10.0	10.0	9.4	0.65	15.485 CC, ES		
300.0	300.0	299.9	299.9	0.5	0.5	-93.03	-0.6	-10.6	10.6	9.6	1.00	10.682		
400.0	400.0	399.7	399.6	0.7	0.7	-100.92	-2.4	-12.5	12.7	11.3	1.35	9.427 SF		
500.0	500.0	499.4	499.2	0.8	0.9	88.79	-5.5	-15.5	16.4	14.7	1.70	9.691		
600.0	600.0	598.9	598.6	1.0	1.1	87.96	-9.8	-19.8	21.7	19.7	2.05	10.585		
700.0	699.9	698.3	697.7	1.2	1.3	89.32	-15.3	-25.3	28.5	26.1	2.42	11.774		
800.0	799.7	797.8	796.7	1.4	1.5	91.71	-21.8	-31.9	36.6	33.8	2.81	13.036		
900.0	899.4	897.4	895.9	1.6	1.7	95.31	-28.4	-38.5	45.0	41.8	3.21	13.995		
924.4	923.7	921.7	920.1	1.7	1.8	96.31	-30.1	-40.1	47.1	43.8	3.32	14.196		
1,000.0	999.0	997.0	995.0	1.8	2.0	99.14	-35.1	-45.2	53.7	50.0	3.64	14.761		
1,100.0	1,098.5	1,096.5	1,094.1	2.0	2.2	101.94	-41.7	-51.8	62.6	58.5	4.07	15.388		
1,200.0	1,198.1	1,196.1	1,193.3	2.3	2.4	104.05	-48.4	-58.5	71.6	67.1	4.50	15.905		
1,300.0	1,297.7	1,295.7	1,292.4	2.5	2.7	105.69	-55.0	-65.2	80.6	75.7	4.94	16.338		
1,400.0	1,397.3	1,395.2	1,391.5	2.7	2.9	106.99	-61.7	-71.8	89.7	84.4	5.37	16.704		
1,500.0	1,496.9	1,494.8	1,490.6	3.0	3.1	108.06	-68.3	-78.5	98.9	93.1	5.81	17.016		
1,600.0	1,596.4	1,594.4	1,589.7	3.2	3.4	108.94	-75.0	-85.1	108.1	101.8	6.25	17.287		
1,700.0	1,696.0	1,693.9	1,688.9	3.4	3.6	109.68	-81.6	-91.8	117.3	110.6	6.69	17.522		
1,800.0	1,795.6	1,793.5	1,788.0	3.6	3.8	110.32	-88.3	-98.4	126.5	119.4	7.14	17.729		
1,900.0	1,895.2	1,893.0	1,887.1	3.9	4.1	110.87	-94.9	-105.1	135.8	128.2	7.58	17.913		
2,000.0	1,994.8	1,992.6	1,986.2	4.1	4.3	111.35	-101.6	-111.8	145.0	137.0	8.02	18.076		
2,100.0	2,094.3	2,092.2	2,085.3	4.3	4.6	111.77	-108.2	-118.4	154.3	145.8	8.47	18.223		
2,200.0	2,193.9	2,191.7	2,184.4	4.6	4.8	112.14	-114.9	-125.1	163.5	154.6	8.91	18.355		
2,300.0	2,293.5	2,291.3	2,283.6	4.8	5.0	112.48	-121.5	-131.7	172.8	163.5	9.35	18.475		
2,400.0	2,393.1	2,390.9	2,382.7	5.0	5.3	112.78	-128.2	-138.4	182.1	172.3	9.80	18.584		
2,500.0	2,492.7	2,490.4	2,481.8	5.3	5.5	113.05	-134.8	-145.1	191.4	181.1	10.24	18.683		
2,600.0	2,592.3	2,590.0	2,580.9	5.5	5.7	113.30	-141.5	-151.7	200.7	190.0	10.69	18.775		
2,700.0	2,691.8	2,689.6	2,680.0	5.7	6.0	113.52	-148.1	-158.4	209.9	198.8	11.13	18.859		
2,800.0	2,791.4	2,789.1	2,779.2	6.0	6.2	113.72	-154.8	-165.0	219.2	207.7	11.58	18.936		
2,900.0	2,891.0	2,888.7	2,878.3	6.2	6.5	113.91	-161.4	-171.7	228.5	216.5	12.02	19.008		
3,000.0	2,990.6	2,988.3	2,977.4	6.5	6.7	114.09	-168.1	-178.3	237.8	225.4	12.47	19.075		
3,100.0	3,090.2	3,087.8	3,076.5	6.7	6.9	114.25	-174.7	-185.0	247.1	234.2	12.91	19.138		
3,200.0	3,189.7	3,187.4	3,175.6	6.9	7.2	114.40	-181.4	-191.7	256.4	243.1	13.36	19.196		
3,300.0	3,289.3	3,287.0	3,274.7	7.2	7.4	114.53	-188.0	-198.3	265.7	251.9	13.80	19.250		
3,400.0	3,388.9	3,386.5	3,373.9	7.4	7.7	114.66	-194.7	-205.0	275.0	260.8	14.25	19.301		
3,500.0	3,488.5	3,486.1	3,473.0	7.6	7.9	114.78	-201.3	-211.6	284.3	269.6	14.70	19.349		
3,600.0	3,588.1	3,585.6	3,572.1	7.9	8.1	114.90	-208.0	-218.3	293.6	278.5	15.14	19.394		
3,700.0	3,687.6	3,685.2	3,671.2	8.1	8.4	115.00	-214.6	-225.0	303.0	287.4	15.59	19.437		
3,800.0	3,787.2	3,784.8	3,770.3	8.3	8.6	115.10	-221.3	-231.6	312.3	296.2	16.03	19.477		
3,900.0	3,886.8	3,884.3	3,869.5	8.6	8.9	115.20	-227.9	-238.3	321.6	305.1	16.48	19.515		
4,000.0	3,986.4	3,983.9	3,968.6	8.8	9.1	115.29	-234.6	-244.9	330.9	314.0	16.92	19.551		
4,100.0	4,086.0	4,083.5	4,067.7	9.0	9.3	115.37	-241.2	-251.6	340.2	322.8	17.37	19.585		
4,200.0	4,185.6	4,183.0	4,166.8	9.3	9.6	115.45	-247.9	-258.2	349.5	331.7	17.82	19.617		
4,300.0	4,285.1	4,282.6	4,265.9	9.5	9.8	115.52	-254.5	-264.9	358.8	340.5	18.26	19.648		
4,400.0	4,384.7	4,382.2	4,365.1	9.8	10.0	115.60	-261.2	-271.6	368.1	349.4	18.71	19.678		
4,500.0	4,484.3	4,481.7	4,464.2	10.0	10.3	115.66	-267.8	-278.2	377.4	358.3	19.15	19.706		
4,600.0	4,583.9	4,581.3	4,563.3	10.2	10.5	115.73	-274.5	-284.9	386.7	367.1	19.60	19.732		
4,700.0	4,683.5	4,680.9	4,662.4	10.5	10.8	115.79	-281.1	-291.5	396.1	376.0	20.05	19.758		
4,800.0	4,783.0	4,780.4	4,761.5	10.7	11.0	115.85	-287.8	-298.2	405.4	384.9	20.49	19.782		
4,900.0	4,882.6	4,880.0	4,860.6	10.9	11.2	115.91	-294.4	-304.9	414.7	393.8	20.94	19.806		
5,000.0	4,982.2	4,979.5	4,959.8	11.2	11.5	115.96	-301.1	-311.5	424.0	402.6	21.38	19.828		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													S32-T2N-R68W (File/Hwy 52) - Hwy 52 4I-32H-O268 - Hz - Plan #1		Offset Site Error:		0.0 ft	
Survey Program:													0-Geolink MWD		Offset Well Error:		0.0 ft	
Reference				Offset		Semi Major Axis			Distance						Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor							
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)								
5,100.0	5,081.8	5,079.1	5,058.9	11.4	11.7	116.01	-307.7	-318.2	433.3	411.5	21.83	19.850						
5,200.0	5,181.4	5,178.7	5,158.0	11.6	12.0	116.06	-314.4	-324.8	442.6	420.4	22.28	19.870						
5,300.0	5,281.0	5,278.2	5,257.1	11.9	12.2	116.11	-321.0	-331.5	452.0	429.2	22.72	19.890						
5,400.0	5,380.5	5,377.8	5,356.2	12.1	12.4	116.15	-327.7	-338.1	461.3	438.1	23.17	19.909						
5,500.0	5,480.1	5,477.4	5,455.4	12.3	12.7	116.20	-334.3	-344.8	470.6	447.0	23.61	19.928						
5,600.0	5,579.7	5,576.9	5,554.5	12.6	12.9	116.24	-341.0	-351.5	479.9	455.8	24.06	19.945						
5,700.0	5,679.3	5,676.5	5,653.6	12.8	13.2	116.28	-347.6	-358.1	489.2	464.7	24.51	19.962						
5,800.0	5,778.9	5,776.1	5,752.7	13.1	13.4	116.32	-354.3	-364.8	498.5	473.6	24.95	19.979						

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4J-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				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	-39.50	6.0	-5.0	7.8					
100.0	100.0	100.0	100.0	0.1	0.1	-39.50	6.0	-5.0	7.8	7.5	0.30	26.323		
200.0	200.0	200.0	200.0	0.3	0.3	-39.50	6.0	-5.0	7.8	7.2	0.65	12.094		
300.0	300.0	300.0	300.0	0.5	0.5	-39.50	6.0	-5.0	7.8	6.8	0.99	7.851		
400.0	400.0	400.1	400.1	0.7	0.7	-44.72	5.2	-5.1	7.3	5.9	1.34	5.408		
499.7	499.7	499.8	499.7	0.8	0.9	135.89	2.6	-5.6	6.7	5.0	1.70	3.963 CC		
500.0	500.0	500.1	500.1	0.8	0.9	135.83	2.6	-5.6	6.7	5.0	1.70	3.960 ES		
600.0	600.0	600.1	600.0	1.0	1.0	118.08	-1.7	-6.3	7.4	5.3	2.06	3.587 SF		
700.0	699.9	700.1	699.7	1.2	1.2	104.18	-7.7	-7.3	9.4	6.9	2.44	3.843		
800.0	799.7	800.0	799.3	1.4	1.4	95.88	-15.5	-8.6	12.5	9.6	2.84	4.390		
900.0	899.4	899.9	898.8	1.6	1.7	92.93	-24.4	-10.2	16.3	13.0	3.26	4.993		
924.4	923.7	924.3	923.1	1.7	1.7	93.24	-26.7	-10.6	17.2	13.9	3.36	5.119		
1,000.0	999.0	999.8	998.3	1.8	1.9	94.49	-33.5	-11.7	20.2	16.5	3.69	5.464		
1,100.0	1,098.5	1,099.7	1,097.8	2.0	2.1	95.68	-42.5	-13.3	24.1	20.0	4.13	5.829		
1,200.0	1,198.1	1,199.6	1,197.3	2.3	2.3	96.53	-51.6	-14.8	28.0	23.4	4.58	6.118		
1,300.0	1,297.7	1,299.5	1,296.8	2.5	2.6	97.17	-60.6	-16.4	32.0	26.9	5.03	6.351		
1,400.0	1,397.3	1,399.5	1,396.3	2.7	2.8	97.67	-69.7	-17.9	35.9	30.4	5.49	6.543		
1,500.0	1,496.9	1,499.4	1,495.8	3.0	3.0	98.08	-78.7	-19.5	39.8	33.9	5.94	6.704		
1,600.0	1,596.4	1,599.3	1,595.3	3.2	3.3	98.41	-87.8	-21.0	43.8	37.4	6.40	6.841		
1,700.0	1,696.0	1,699.2	1,694.8	3.4	3.5	98.68	-96.8	-22.6	47.7	40.9	6.86	6.957		
1,800.0	1,795.6	1,799.2	1,794.3	3.6	3.7	98.92	-105.9	-24.1	51.7	44.4	7.32	7.059		
1,900.0	1,895.2	1,899.1	1,893.8	3.9	4.0	99.12	-114.9	-25.6	55.6	47.8	7.78	7.147		
2,000.0	1,994.8	1,999.0	1,993.3	4.1	4.2	99.29	-124.0	-27.2	59.6	51.3	8.25	7.225		
2,100.0	2,094.3	2,098.9	2,092.8	4.3	4.4	99.44	-133.0	-28.7	63.5	54.8	8.71	7.295		
2,200.0	2,193.9	2,198.8	2,192.3	4.6	4.7	99.58	-142.1	-30.3	67.5	58.3	9.17	7.356		
2,300.0	2,293.5	2,298.8	2,291.8	4.8	4.9	99.69	-151.1	-31.8	71.4	61.8	9.64	7.412		
2,400.0	2,393.1	2,398.7	2,391.3	5.0	5.1	99.80	-160.2	-33.4	75.4	65.3	10.10	7.462		
2,500.0	2,492.7	2,498.6	2,490.8	5.3	5.4	99.90	-169.2	-34.9	79.3	68.8	10.56	7.508		
2,600.0	2,592.3	2,598.5	2,590.3	5.5	5.6	99.99	-178.3	-36.5	83.3	72.2	11.03	7.550		
2,700.0	2,691.8	2,698.5	2,689.8	5.7	5.8	100.06	-187.3	-38.0	87.2	75.7	11.50	7.588		
2,800.0	2,791.4	2,798.4	2,789.3	6.0	6.1	100.14	-196.4	-39.6	91.2	79.2	11.96	7.623		
2,900.0	2,891.0	2,898.3	2,888.8	6.2	6.3	100.20	-205.4	-41.1	95.1	82.7	12.43	7.655		
3,000.0	2,990.6	2,998.2	2,988.3	6.5	6.6	100.26	-214.5	-42.7	99.1	86.2	12.89	7.685		
3,100.0	3,090.2	3,098.1	3,087.8	6.7	6.8	100.32	-223.5	-44.2	103.0	89.7	13.36	7.712		
3,200.0	3,189.7	3,198.1	3,187.3	6.9	7.0	100.37	-232.6	-45.8	107.0	93.1	13.82	7.738		
3,300.0	3,289.3	3,298.0	3,286.8	7.2	7.3	100.42	-241.6	-47.3	110.9	96.6	14.29	7.762		
3,400.0	3,388.9	3,397.9	3,386.3	7.4	7.5	100.47	-250.7	-48.8	114.9	100.1	14.76	7.784		
3,500.0	3,488.5	3,497.8	3,485.8	7.6	7.7	100.51	-259.7	-50.4	118.8	103.6	15.22	7.805		
3,600.0	3,588.1	3,597.8	3,585.3	7.9	8.0	100.55	-268.8	-51.9	122.8	107.1	15.69	7.825		
3,700.0	3,687.6	3,697.7	3,684.8	8.1	8.2	100.59	-277.8	-53.5	126.7	110.6	16.16	7.843		
3,800.0	3,787.2	3,797.6	3,784.3	8.3	8.4	100.62	-286.9	-55.0	130.7	114.0	16.62	7.861		
3,900.0	3,886.8	3,897.5	3,883.8	8.6	8.7	100.65	-295.9	-56.6	134.6	117.5	17.09	7.877		
4,000.0	3,986.4	3,997.4	3,983.3	8.8	8.9	100.68	-304.9	-58.1	138.6	121.0	17.56	7.893		
4,100.0	4,086.0	4,097.4	4,082.8	9.0	9.2	100.71	-314.0	-59.7	142.5	124.5	18.02	7.907		
4,200.0	4,185.6	4,197.3	4,182.3	9.3	9.4	100.74	-323.0	-61.2	146.5	128.0	18.49	7.921		
4,300.0	4,285.1	4,297.2	4,281.8	9.5	9.6	100.77	-332.1	-62.8	150.4	131.5	18.96	7.935		
4,400.0	4,384.7	4,397.1	4,381.3	9.8	9.9	100.79	-341.1	-64.3	154.4	134.9	19.43	7.947		
4,500.0	4,484.3	4,497.0	4,480.8	10.0	10.1	100.82	-350.2	-65.9	158.3	138.4	19.89	7.959		
4,600.0	4,583.9	4,597.0	4,580.3	10.2	10.3	100.84	-359.2	-67.4	162.3	141.9	20.36	7.970		
4,700.0	4,683.5	4,696.9	4,679.8	10.5	10.6	100.86	-368.3	-69.0	166.2	145.4	20.83	7.981		
4,800.0	4,783.0	4,796.8	4,779.3	10.7	10.8	100.88	-377.3	-70.5	170.2	148.9	21.29	7.992		
4,900.0	4,882.6	4,896.7	4,878.8	10.9	11.0	100.90	-386.4	-72.0	174.1	152.4	21.76	8.002		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4J-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
5,000.0	4,982.2	4,996.7	4,978.3	11.2	11.3	100.92	-395.4	-73.6	178.1	155.8	22.23	8.011		
5,100.0	5,081.8	5,096.6	5,077.8	11.4	11.5	100.94	-404.5	-75.1	182.0	159.3	22.70	8.020		
5,200.0	5,181.4	5,196.5	5,177.3	11.6	11.8	100.95	-413.5	-76.7	186.0	162.8	23.16	8.029		
5,300.0	5,281.0	5,296.4	5,276.8	11.9	12.0	100.97	-422.6	-78.2	189.9	166.3	23.63	8.037		
5,400.0	5,380.5	5,396.3	5,376.3	12.1	12.2	100.98	-431.6	-79.8	193.9	169.8	24.10	8.045		
5,500.0	5,480.1	5,496.3	5,475.8	12.3	12.5	101.00	-440.7	-81.3	197.8	173.3	24.57	8.053		
5,600.0	5,579.7	5,596.2	5,575.3	12.6	12.7	101.01	-449.7	-82.9	201.8	176.7	25.03	8.060		
5,700.0	5,679.3	5,696.1	5,674.8	12.8	12.9	101.03	-458.8	-84.4	205.7	180.2	25.50	8.068		
5,800.0	5,778.9	5,796.0	5,774.3	13.1	13.2	101.04	-467.8	-86.0	209.7	183.7	25.97	8.074		
5,900.0	5,878.4	5,896.0	5,873.8	13.3	13.4	101.05	-476.9	-87.5	213.6	187.2	26.44	8.081		
6,000.0	5,978.0	5,995.9	5,973.3	13.5	13.6	101.07	-485.9	-89.1	217.6	190.7	26.90	8.087		
6,100.0	6,077.6	6,095.8	6,072.8	13.8	13.9	101.08	-495.0	-90.6	221.5	194.2	27.37	8.094		
6,200.0	6,177.2	6,195.7	6,172.3	14.0	14.1	101.09	-504.0	-92.2	225.5	197.6	27.84	8.100		
6,300.0	6,276.8	6,295.6	6,271.8	14.2	14.4	101.10	-513.1	-93.7	229.4	201.1	28.31	8.105		
6,400.0	6,376.3	6,395.6	6,371.3	14.5	14.6	101.11	-522.1	-95.2	233.4	204.6	28.77	8.111		
6,500.0	6,475.9	6,495.5	6,470.8	14.7	14.8	101.12	-531.2	-96.8	237.3	208.1	29.24	8.116		
6,600.0	6,575.5	6,595.4	6,570.3	14.9	15.1	101.13	-540.2	-98.3	241.3	211.6	29.71	8.121		
6,700.0	6,675.1	6,695.3	6,669.8	15.2	15.3	101.14	-549.3	-99.9	245.2	215.1	30.18	8.127		
6,800.0	6,774.7	6,795.3	6,769.3	15.4	15.5	101.15	-558.3	-101.4	249.2	218.5	30.65	8.131		
6,900.0	6,874.3	6,896.4	6,870.1	15.7	15.7	102.01	-567.3	-103.1	253.0	221.9	31.05	8.148		
7,000.0	6,973.8	6,994.3	6,967.4	15.9	15.7	106.36	-553.0	-104.9	257.0	225.8	31.22	8.231		
7,100.0	7,073.4	7,083.4	7,053.1	16.1	15.5	113.21	-529.0	-106.8	264.8	233.7	31.10	8.515		
7,115.3	7,088.6	7,096.1	7,064.9	16.2	15.5	114.37	-524.5	-107.1	266.6	235.6	31.05	8.586		
7,150.0	7,123.3	7,124.2	7,090.9	16.2	15.4	142.87	-513.6	-107.7	271.4	240.5	30.89	8.787		
7,200.0	7,173.2	7,163.9	7,126.5	16.3	15.3	-95.28	-496.1	-108.6	279.5	248.9	30.57	9.142		
7,250.0	7,222.9	7,200.0	7,157.7	16.3	15.1	-79.05	-478.1	-109.5	288.7	258.5	30.20	9.559		
7,300.0	7,272.0	7,240.8	7,191.6	16.2	15.0	-71.90	-455.5	-110.5	298.6	268.9	29.71	10.050		
7,350.0	7,320.1	7,278.1	7,221.1	16.1	14.8	-67.11	-432.7	-111.4	309.0	279.8	29.19	10.583		
7,400.0	7,366.8	7,314.8	7,248.6	16.0	14.7	-63.30	-408.4	-112.3	319.6	290.9	28.64	11.159		
7,450.0	7,411.7	7,350.0	7,273.5	15.8	14.5	-60.16	-383.5	-113.1	330.1	302.1	28.05	11.770		
7,500.0	7,454.6	7,386.8	7,297.8	15.7	14.3	-57.40	-356.0	-114.0	340.5	313.1	27.42	12.417		
7,550.0	7,495.0	7,422.1	7,319.5	15.5	14.2	-55.07	-328.0	-114.9	350.4	323.7	26.78	13.084		
7,600.0	7,532.8	7,457.1	7,339.2	15.2	14.1	-53.07	-299.1	-115.7	359.8	333.7	26.14	13.766		
7,650.0	7,567.6	7,491.8	7,356.9	15.0	13.9	-51.36	-269.3	-116.5	368.6	343.1	25.51	14.451		
7,700.0	7,599.1	7,526.3	7,372.7	14.8	13.8	-49.91	-238.7	-117.4	376.5	351.6	24.90	15.123		
7,750.0	7,627.1	7,560.5	7,386.6	14.7	13.7	-48.70	-207.5	-118.1	383.7	359.3	24.34	15.764		
7,800.0	7,651.4	7,600.0	7,400.2	14.5	13.7	-47.64	-170.4	-119.0	389.9	366.1	23.82	16.365		
7,850.0	7,671.8	7,628.5	7,408.5	14.4	13.6	-46.93	-143.2	-119.6	395.0	371.6	23.43	16.857		
7,900.0	7,688.1	7,662.3	7,416.5	14.3	13.6	-46.34	-110.3	-120.3	399.2	376.0	23.13	17.259		
7,950.0	7,700.3	7,700.0	7,423.1	14.2	13.6	-45.93	-73.2	-121.1	402.3	379.4	22.95	17.532		
8,000.0	7,708.2	7,729.7	7,426.6	14.3	13.6	-45.72	-43.8	-121.7	404.3	381.4	22.90	17.651		
8,050.0	7,711.8	7,763.3	7,428.7	14.3	13.7	-45.67	-10.2	-122.3	405.2	382.2	23.00	17.617		
8,065.9	7,712.0	7,774.0	7,428.9	14.4	13.7	-45.69	0.5	-122.5	405.2	382.2	23.06	17.573		
8,100.0	7,712.0	7,804.1	7,429.0	14.4	13.8	-45.74	30.6	-123.0	405.5	382.3	23.24	17.452		
8,200.0	7,712.0	7,904.1	7,429.0	14.8	14.2	-45.88	130.6	-124.8	406.5	382.6	23.95	16.975		
8,300.0	7,712.0	8,004.1	7,429.0	15.4	14.8	-46.01	230.5	-126.5	407.5	382.6	24.90	16.365		
8,400.0	7,712.0	8,104.0	7,429.0	16.2	15.5	-46.15	330.5	-128.3	408.5	382.5	26.08	15.667		
8,500.0	7,712.0	8,204.0	7,429.0	17.1	16.4	-46.29	430.5	-130.0	409.5	382.1	27.44	14.924		
8,600.0	7,712.0	8,304.0	7,429.0	18.1	17.5	-46.42	530.5	-131.7	410.5	381.6	28.98	14.168		
8,700.0	7,712.0	8,404.0	7,429.0	19.2	18.6	-46.55	630.4	-133.5	411.6	380.9	30.66	13.423		
8,800.0	7,712.0	8,504.0	7,429.0	20.5	19.9	-46.69	730.4	-135.2	412.6	380.1	32.47	12.707		
8,900.0	7,712.0	8,604.0	7,429.0	21.7	21.2	-46.82	830.4	-137.0	413.6	379.2	34.39	12.028		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4J-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,000.0	7,712.0	8,704.0	7,429.0	23.1	22.5	-46.95	930.4	-138.7	414.6	378.2	36.40	11.392		
9,100.0	7,712.0	8,804.0	7,429.0	24.5	24.0	-47.08	1,030.3	-140.5	415.6	377.1	38.49	10.799		
9,200.0	7,712.0	8,904.0	7,429.0	26.0	25.4	-47.21	1,130.3	-142.2	416.7	376.0	40.65	10.250		
9,300.0	7,712.0	9,004.0	7,429.0	27.4	26.9	-47.34	1,230.3	-144.0	417.7	374.8	42.88	9.742		
9,400.0	7,712.0	9,103.9	7,429.0	28.9	28.5	-47.47	1,330.3	-145.7	418.7	373.6	45.15	9.273		
9,500.0	7,712.0	9,203.9	7,429.0	30.5	30.0	-47.60	1,430.2	-147.4	419.7	372.3	47.48	8.840		
9,600.0	7,712.0	9,303.9	7,429.0	32.0	31.6	-47.73	1,530.2	-149.2	420.8	370.9	49.85	8.441		
9,700.0	7,712.0	9,403.9	7,429.0	33.6	33.2	-47.86	1,630.2	-150.9	421.8	369.5	52.26	8.071		
9,800.0	7,712.0	9,503.9	7,429.0	35.2	34.8	-47.99	1,730.2	-152.7	422.8	368.1	54.70	7.730		
9,900.0	7,712.0	9,603.9	7,429.0	36.8	36.4	-48.11	1,830.1	-154.4	423.9	366.7	57.18	7.414		
10,000.0	7,712.0	9,703.9	7,429.0	38.5	38.0	-48.24	1,930.1	-156.2	424.9	365.2	59.68	7.120		
10,100.0	7,712.0	9,803.9	7,429.0	40.1	39.7	-48.36	2,030.1	-157.9	426.0	363.8	62.21	6.847		
10,200.0	7,712.0	9,903.9	7,429.0	41.7	41.3	-48.49	2,130.1	-159.7	427.0	362.2	64.76	6.593		
10,300.0	7,712.0	10,003.9	7,429.0	43.4	43.0	-48.61	2,230.0	-161.4	428.1	360.7	67.34	6.357		
10,400.0	7,712.0	10,103.8	7,429.0	45.1	44.7	-48.73	2,330.0	-163.2	429.1	359.2	69.94	6.135		
10,500.0	7,712.0	10,203.8	7,429.0	46.7	46.3	-48.86	2,430.0	-164.9	430.2	357.6	72.56	5.928		
10,600.0	7,712.0	10,303.8	7,429.0	48.4	48.0	-48.98	2,530.0	-166.6	431.2	356.0	75.19	5.735		
10,700.0	7,712.0	10,403.8	7,429.0	50.1	49.7	-49.10	2,629.9	-168.4	432.3	354.4	77.85	5.553		
10,800.0	7,712.0	10,503.8	7,429.0	51.8	51.4	-49.22	2,729.9	-170.1	433.3	352.8	80.52	5.382		
10,900.0	7,712.0	10,603.8	7,429.0	53.4	53.1	-49.34	2,829.9	-171.9	434.4	351.2	83.21	5.220		
11,000.0	7,712.0	10,703.8	7,429.0	55.1	54.8	-49.46	2,929.9	-173.6	435.4	349.5	85.91	5.069		
11,100.0	7,712.0	10,803.8	7,429.0	56.8	56.5	-49.58	3,029.8	-175.4	436.5	347.9	88.63	4.925		
11,200.0	7,712.0	10,903.8	7,429.0	58.5	58.2	-49.70	3,129.8	-177.1	437.6	346.2	91.36	4.790		
11,300.0	7,712.0	11,003.8	7,429.0	60.2	59.9	-49.82	3,229.8	-178.9	438.6	344.5	94.10	4.661		
11,400.0	7,712.0	11,103.8	7,429.0	61.9	61.6	-49.93	3,329.8	-180.6	439.7	342.8	96.86	4.540		
11,500.0	7,712.0	11,203.7	7,429.0	63.6	63.3	-50.05	3,429.7	-182.3	440.8	341.1	99.63	4.424		
11,600.0	7,712.0	11,303.7	7,429.0	65.4	65.0	-50.17	3,529.7	-184.1	441.8	339.4	102.41	4.314		
11,700.0	7,712.0	11,403.7	7,429.0	67.1	66.7	-50.28	3,629.7	-185.8	442.9	337.7	105.20	4.210		
11,800.0	7,712.0	11,503.7	7,429.0	68.8	68.5	-50.40	3,729.7	-187.6	444.0	336.0	108.00	4.111		
11,900.0	7,712.0	11,603.7	7,429.0	70.5	70.2	-50.51	3,829.6	-189.3	445.1	334.2	110.82	4.016		
12,000.0	7,712.0	11,703.7	7,429.0	72.2	71.9	-50.63	3,929.6	-191.1	446.1	332.5	113.64	3.926		
12,100.0	7,712.0	11,803.7	7,429.0	73.9	73.6	-50.74	4,029.6	-192.8	447.2	330.7	116.48	3.839		
12,200.0	7,712.0	11,903.7	7,429.0	75.7	75.4	-50.85	4,129.6	-194.6	448.3	329.0	119.33	3.757		
12,300.0	7,712.0	12,003.7	7,429.0	77.4	77.1	-50.97	4,229.5	-196.3	449.4	327.2	122.18	3.678		
12,333.9	7,712.0	12,037.6	7,429.0	78.0	77.7	-51.00	4,263.4	-196.9	449.8	326.6	123.15	3.652		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4L-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	40.11	6.0	5.0	7.8					
100.0	100.0	100.0	100.0	0.1	0.1	40.11	6.0	5.0	7.8	7.5	0.30	26.323		
200.0	200.0	200.0	200.0	0.3	0.3	40.11	6.0	5.0	7.8	7.2	0.65	12.094		
300.0	300.0	300.0	300.0	0.5	0.5	40.11	6.0	5.0	7.8	6.8	0.99	7.851		
400.0	400.0	400.0	400.0	0.7	0.7	40.11	6.0	5.0	7.8	6.5	1.34	5.812 CC, ES		
500.0	500.0	500.0	500.0	0.8	0.8	-129.62	6.0	5.0	8.3	6.6	1.69	4.924		
600.0	600.0	600.1	600.1	1.0	1.0	-131.88	4.5	6.0	9.4	7.4	2.05	4.606		
700.0	699.9	700.2	700.0	1.2	1.2	-123.05	0.2	9.0	10.5	8.1	2.41	4.345		
800.0	799.7	800.2	799.6	1.4	1.4	-107.07	-6.9	14.0	12.3	9.5	2.82	4.360		
900.0	899.4	899.9	898.6	1.6	1.6	-91.55	-16.4	21.0	15.9	12.7	3.25	4.908		
924.4	923.7	924.2	922.8	1.7	1.7	-89.59	-18.7	22.9	17.2	13.8	3.36	5.125		
1,000.0	999.0	999.7	997.7	1.8	1.9	-85.53	-25.8	28.9	21.2	17.5	3.69	5.755		
1,100.0	1,098.5	1,099.5	1,096.8	2.0	2.1	-82.06	-35.1	36.8	26.6	22.5	4.13	6.452		
1,200.0	1,198.1	1,199.4	1,195.8	2.3	2.4	-79.76	-44.5	44.8	32.1	27.5	4.57	7.025		
1,300.0	1,297.7	1,299.2	1,294.9	2.5	2.7	-78.14	-53.9	52.7	37.6	32.6	5.02	7.499		
1,400.0	1,397.3	1,399.0	1,394.0	2.7	2.9	-76.94	-63.2	60.7	43.2	37.7	5.47	7.898		
1,500.0	1,496.9	1,498.9	1,493.1	3.0	3.2	-76.00	-72.6	68.6	48.7	42.8	5.92	8.236		
1,600.0	1,596.4	1,598.7	1,592.2	3.2	3.5	-75.26	-82.0	76.6	54.3	47.9	6.37	8.527		
1,700.0	1,696.0	1,698.6	1,691.3	3.4	3.7	-74.66	-91.3	84.5	59.9	53.0	6.82	8.779		
1,800.0	1,795.6	1,798.4	1,790.3	3.6	4.0	-74.16	-100.7	92.5	65.4	58.2	7.27	8.999		
1,900.0	1,895.2	1,898.3	1,889.4	3.9	4.3	-73.74	-110.1	100.5	71.0	63.3	7.72	9.194		
2,000.0	1,994.8	1,998.1	1,988.5	4.1	4.5	-73.38	-119.4	108.4	76.6	68.4	8.18	9.366		
2,100.0	2,094.3	2,097.9	2,087.6	4.3	4.8	-73.07	-128.8	116.4	82.2	73.6	8.63	9.521		
2,200.0	2,193.9	2,197.8	2,186.7	4.6	5.1	-72.79	-138.2	124.3	87.8	78.7	9.09	9.659		
2,300.0	2,293.5	2,297.6	2,285.8	4.8	5.4	-72.55	-147.5	132.3	93.4	83.8	9.54	9.785		
2,400.0	2,393.1	2,397.5	2,384.8	5.0	5.6	-72.34	-156.9	140.2	99.0	89.0	10.00	9.898		
2,500.0	2,492.7	2,497.3	2,483.9	5.3	5.9	-72.15	-166.3	148.2	104.6	94.1	10.45	10.002		
2,600.0	2,592.3	2,597.2	2,583.0	5.5	6.2	-71.98	-175.7	156.1	110.2	99.2	10.91	10.097		
2,700.0	2,691.8	2,697.0	2,682.1	5.7	6.5	-71.83	-185.0	164.1	115.7	104.4	11.37	10.184		
2,800.0	2,791.4	2,796.8	2,781.2	6.0	6.7	-71.69	-194.4	172.0	121.3	109.5	11.82	10.264		
2,900.0	2,891.0	2,896.7	2,880.3	6.2	7.0	-71.56	-203.8	180.0	126.9	114.7	12.28	10.338		
3,000.0	2,990.6	2,996.5	2,979.3	6.5	7.3	-71.45	-213.1	187.9	132.5	119.8	12.74	10.407		
3,100.0	3,090.2	3,096.4	3,078.4	6.7	7.6	-71.34	-222.5	195.9	138.1	124.9	13.19	10.471		
3,200.0	3,189.7	3,196.2	3,177.5	6.9	7.8	-71.24	-231.9	203.8	143.7	130.1	13.65	10.531		
3,300.0	3,289.3	3,296.1	3,276.6	7.2	8.1	-71.15	-241.2	211.8	149.3	135.2	14.11	10.587		
3,400.0	3,388.9	3,395.9	3,375.7	7.4	8.4	-71.06	-250.6	219.7	154.9	140.4	14.56	10.639		
3,500.0	3,488.5	3,495.7	3,474.8	7.6	8.7	-70.99	-260.0	227.7	160.5	145.5	15.02	10.688		
3,600.0	3,588.1	3,595.6	3,573.8	7.9	8.9	-70.91	-269.3	235.6	166.1	150.7	15.48	10.734		
3,700.0	3,687.6	3,695.4	3,672.9	8.1	9.2	-70.84	-278.7	243.6	171.7	155.8	15.93	10.778		
3,800.0	3,787.2	3,795.3	3,772.0	8.3	9.5	-70.78	-288.1	251.5	177.3	160.9	16.39	10.819		
3,900.0	3,886.8	3,895.1	3,871.1	8.6	9.8	-70.72	-297.4	259.5	182.9	166.1	16.85	10.857		
4,000.0	3,986.4	3,995.0	3,970.2	8.8	10.0	-70.66	-306.8	267.4	188.5	171.2	17.31	10.894		
4,100.0	4,086.0	4,094.8	4,069.3	9.0	10.3	-70.61	-316.2	275.4	194.1	176.4	17.76	10.929		
4,200.0	4,185.6	4,194.6	4,168.3	9.3	10.6	-70.56	-325.5	283.3	199.7	181.5	18.22	10.962		
4,300.0	4,285.1	4,294.5	4,267.4	9.5	10.9	-70.51	-334.9	291.3	205.3	186.7	18.68	10.993		
4,400.0	4,384.7	4,394.3	4,366.5	9.8	11.1	-70.46	-344.3	299.3	210.9	191.8	19.14	11.023		
4,500.0	4,484.3	4,494.2	4,465.6	10.0	11.4	-70.42	-353.6	307.2	216.6	197.0	19.59	11.051		
4,600.0	4,583.9	4,594.0	4,564.7	10.2	11.7	-70.38	-363.0	315.2	222.2	202.1	20.05	11.079		
4,700.0	4,683.5	4,693.9	4,663.8	10.5	12.0	-70.34	-372.4	323.1	227.8	207.2	20.51	11.104		
4,800.0	4,783.0	4,793.7	4,762.8	10.7	12.2	-70.31	-381.8	331.1	233.4	212.4	20.97	11.129		
4,900.0	4,882.6	4,893.5	4,861.9	10.9	12.5	-70.27	-391.1	339.0	239.0	217.5	21.43	11.153		
5,000.0	4,982.2	4,993.4	4,961.0	11.2	12.8	-70.24	-400.5	347.0	244.6	222.7	21.88	11.176		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4L-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,081.8	5,093.2	5,060.1	11.4	13.1	-70.20	-409.9	354.9	250.2	227.8	22.34	11.197		
5,200.0	5,181.4	5,193.1	5,159.2	11.6	13.4	-70.17	-419.2	362.9	255.8	233.0	22.80	11.218		
5,300.0	5,281.0	5,292.9	5,258.3	11.9	13.6	-70.14	-428.6	370.8	261.4	238.1	23.26	11.238		
5,400.0	5,380.5	5,392.8	5,357.4	12.1	13.9	-70.12	-438.0	378.8	267.0	243.3	23.72	11.257		
5,500.0	5,480.1	5,492.6	5,456.4	12.3	14.2	-70.09	-447.3	386.7	272.6	248.4	24.17	11.276		
5,600.0	5,579.7	5,592.4	5,555.5	12.6	14.5	-70.06	-456.7	394.7	278.2	253.5	24.63	11.294		
5,700.0	5,679.3	5,692.3	5,654.6	12.8	14.7	-70.04	-466.1	402.6	283.8	258.7	25.09	11.311		
5,800.0	5,778.9	5,792.1	5,753.7	13.1	15.0	-70.02	-475.4	410.6	289.4	263.8	25.55	11.327		
5,900.0	5,878.4	5,892.0	5,852.8	13.3	15.3	-69.99	-484.8	418.5	295.0	269.0	26.01	11.343		
6,000.0	5,978.0	5,991.8	5,951.9	13.5	15.6	-69.97	-494.2	426.5	300.6	274.1	26.46	11.359		
6,100.0	6,077.6	6,091.7	6,050.9	13.8	15.8	-69.95	-503.5	434.4	306.2	279.3	26.92	11.374		
6,200.0	6,177.2	6,191.5	6,150.0	14.0	16.1	-69.93	-512.9	442.4	311.8	284.4	27.38	11.388		
6,300.0	6,276.8	6,291.3	6,249.1	14.2	16.4	-69.91	-522.3	450.3	317.4	289.6	27.84	11.402		
6,400.0	6,376.3	6,391.2	6,348.2	14.5	16.7	-69.89	-531.6	458.3	323.0	294.7	28.30	11.415		
6,500.0	6,475.9	6,491.0	6,447.3	14.7	16.9	-69.87	-541.0	466.2	328.6	299.9	28.75	11.428		
6,600.0	6,575.5	6,590.9	6,546.4	14.9	17.2	-69.85	-550.4	474.2	334.2	305.0	29.21	11.441		
6,700.0	6,675.1	6,690.7	6,645.4	15.2	17.5	-69.84	-559.8	482.2	339.8	310.1	29.67	11.453		
6,800.0	6,774.7	6,790.6	6,744.5	15.4	17.8	-69.82	-569.1	490.1	345.4	315.3	30.13	11.465		
6,900.0	6,874.3	6,892.6	6,846.0	15.7	18.0	-70.06	-577.1	498.2	350.9	320.3	30.59	11.472		
7,000.0	6,973.8	6,995.4	6,948.0	15.9	18.1	-72.72	-570.0	506.3	355.5	324.3	31.19	11.397		
7,100.0	7,073.4	7,089.6	7,039.1	16.1	18.0	-77.60	-547.5	513.3	361.2	329.3	31.87	11.334		
7,115.3	7,088.6	7,103.0	7,051.7	16.2	18.0	-78.47	-543.1	514.3	362.4	330.5	31.97	11.336		
7,150.0	7,123.3	7,132.9	7,079.5	16.2	17.9	-55.27	-532.2	516.4	365.6	333.4	32.19	11.358		
7,200.0	7,173.2	7,174.9	7,117.4	16.3	17.8	59.25	-514.5	519.2	371.1	338.7	32.39	11.456		
7,250.0	7,222.9	7,215.8	7,153.1	16.3	17.7	68.79	-494.6	521.9	377.4	344.9	32.46	11.627		
7,300.0	7,272.0	7,255.9	7,186.5	16.2	17.6	69.30	-472.7	524.4	384.3	352.0	32.39	11.867		
7,350.0	7,320.1	7,295.1	7,217.7	16.1	17.5	68.16	-449.0	526.6	391.8	359.6	32.18	12.175		
7,400.0	7,366.8	7,333.7	7,246.7	16.0	17.3	66.52	-423.7	528.7	399.6	367.7	31.84	12.549		
7,450.0	7,411.7	7,371.6	7,273.5	15.8	17.2	64.76	-397.0	530.6	407.4	376.1	31.38	12.986		
7,500.0	7,454.6	7,409.0	7,298.2	15.7	17.1	63.02	-368.9	532.3	415.3	384.5	30.80	13.482		
7,550.0	7,495.0	7,450.0	7,323.1	15.5	16.9	61.23	-336.4	534.0	423.0	392.8	30.11	14.046		
7,600.0	7,532.8	7,482.3	7,341.0	15.2	16.8	59.83	-309.5	535.2	430.3	400.9	29.40	14.634		
7,650.0	7,567.6	7,518.5	7,359.3	15.0	16.7	58.43	-278.3	536.4	437.2	408.6	28.62	15.273		
7,700.0	7,599.1	7,550.0	7,373.5	14.8	16.7	57.28	-250.2	537.3	443.6	415.7	27.86	15.923		
7,750.0	7,627.1	7,589.8	7,389.3	14.7	16.6	56.10	-213.7	538.2	449.3	422.3	27.06	16.604		
7,800.0	7,651.4	7,625.1	7,401.2	14.5	16.5	55.16	-180.5	538.9	454.4	428.0	26.35	17.247		
7,850.0	7,671.8	7,660.3	7,411.0	14.4	16.5	54.37	-146.7	539.4	458.7	433.0	25.72	17.834		
7,900.0	7,688.1	7,700.0	7,419.5	14.3	16.5	53.70	-107.9	539.7	462.2	437.0	25.20	18.338		
7,950.0	7,700.3	7,730.1	7,424.2	14.2	16.5	53.27	-78.2	539.8	464.8	439.9	24.88	18.684		
8,000.0	7,708.2	7,764.9	7,427.6	14.3	16.5	52.94	-43.6	539.8	466.5	441.8	24.71	18.883		
8,050.0	7,711.8	7,804.6	7,429.0	14.3	16.5	52.75	-3.9	539.5	467.4	442.6	24.75	18.883		
8,052.9	7,711.9	7,804.6	7,429.0	14.3	16.5	52.75	-3.9	539.5	467.4	442.6	24.76	18.878		
8,065.9	7,712.0	7,813.3	7,429.0	14.4	16.5	52.74	4.8	539.5	467.4	442.6	24.81	18.839		
8,100.0	7,712.0	7,847.4	7,429.0	14.4	16.6	52.72	38.9	539.2	467.3	442.3	24.99	18.695		
8,200.0	7,712.0	7,947.4	7,429.0	14.8	16.9	52.68	138.9	538.3	466.8	441.1	25.70	18.167		
8,300.0	7,712.0	8,047.4	7,429.0	15.4	17.4	52.64	238.9	537.4	466.4	439.7	26.68	17.485		
8,400.0	7,712.0	8,147.4	7,429.0	16.2	18.1	52.61	338.9	536.5	466.0	438.1	27.90	16.703		
8,500.0	7,712.0	8,247.4	7,429.0	17.1	18.9	52.57	438.9	535.7	465.6	436.2	29.34	15.870		
8,600.0	7,712.0	8,347.4	7,429.0	18.1	19.8	52.53	538.9	534.8	465.2	434.2	30.96	15.025		
8,700.0	7,712.0	8,447.4	7,429.0	19.2	20.8	52.49	638.9	533.9	464.8	432.0	32.74	14.196		
8,800.0	7,712.0	8,547.4	7,429.0	20.5	21.9	52.45	738.9	533.1	464.3	429.7	34.65	13.402		
8,900.0	7,712.0	8,647.4	7,429.0	21.7	23.1	52.41	838.8	532.2	463.9	427.3	36.67	12.653		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4L-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
9,000.0	7,712.0	8,747.4	7,429.0	23.1	24.4	52.37	938.8	531.3	463.5	424.7	38.78	11.953		
9,100.0	7,712.0	8,847.4	7,429.0	24.5	25.7	52.33	1,038.8	530.4	463.1	422.1	40.97	11.304		
9,200.0	7,712.0	8,947.4	7,429.0	26.0	27.1	52.29	1,138.8	529.6	462.7	419.5	43.22	10.705		
9,300.0	7,712.0	9,047.4	7,429.0	27.4	28.5	52.25	1,238.8	528.7	462.3	416.7	45.53	10.153		
9,400.0	7,712.0	9,147.4	7,429.0	28.9	30.0	52.21	1,338.8	527.8	461.9	414.0	47.88	9.645		
9,500.0	7,712.0	9,247.4	7,429.0	30.5	31.4	52.17	1,438.8	526.9	461.4	411.2	50.28	9.178		
9,600.0	7,712.0	9,347.4	7,429.0	32.0	32.9	52.13	1,538.8	526.1	461.0	408.3	52.71	8.747		
9,700.0	7,712.0	9,447.4	7,429.0	33.6	34.5	52.09	1,638.8	525.2	460.6	405.4	55.16	8.350		
9,800.0	7,712.0	9,547.4	7,429.0	35.2	36.0	52.05	1,738.8	524.3	460.2	402.6	57.64	7.984		
9,900.0	7,712.0	9,647.4	7,429.0	36.8	37.6	52.01	1,838.8	523.5	459.8	399.6	60.15	7.645		
10,000.0	7,712.0	9,747.4	7,429.0	38.5	39.2	51.97	1,938.8	522.6	459.4	396.7	62.67	7.331		
10,100.0	7,712.0	9,847.4	7,429.0	40.1	40.8	51.93	2,038.8	521.7	459.0	393.8	65.20	7.039		
10,200.0	7,712.0	9,947.4	7,429.0	41.7	42.4	51.89	2,138.8	520.8	458.5	390.8	67.75	6.768		
10,300.0	7,712.0	10,047.4	7,429.0	43.4	44.0	51.85	2,238.8	520.0	458.1	387.8	70.31	6.516		
10,400.0	7,712.0	10,147.4	7,429.0	45.1	45.6	51.81	2,338.8	519.1	457.7	384.8	72.88	6.280		
10,500.0	7,712.0	10,247.4	7,429.0	46.7	47.3	51.77	2,438.8	518.2	457.3	381.9	75.46	6.060		
10,600.0	7,712.0	10,347.4	7,429.0	48.4	48.9	51.73	2,538.8	517.3	456.9	378.9	78.05	5.854		
10,700.0	7,712.0	10,447.4	7,429.0	50.1	50.6	51.69	2,638.8	516.5	456.5	375.9	80.64	5.661		
10,800.0	7,712.0	10,547.4	7,429.0	51.8	52.3	51.65	2,738.7	515.6	456.1	372.8	83.24	5.479		
10,900.0	7,712.0	10,647.4	7,429.0	53.4	53.9	51.61	2,838.7	514.7	455.7	369.8	85.84	5.308		
11,000.0	7,712.0	10,747.4	7,429.0	55.1	55.6	51.56	2,938.7	513.9	455.3	366.8	88.45	5.147		
11,100.0	7,712.0	10,847.4	7,429.0	56.8	57.3	51.52	3,038.7	513.0	454.9	363.8	91.06	4.995		
11,200.0	7,712.0	10,947.4	7,429.0	58.5	59.0	51.48	3,138.7	512.1	454.4	360.8	93.67	4.851		
11,300.0	7,712.0	11,047.3	7,429.0	60.2	60.6	51.44	3,238.7	511.2	454.0	357.7	96.29	4.715		
11,400.0	7,712.0	11,147.3	7,429.0	61.9	62.3	51.40	3,338.7	510.4	453.6	354.7	98.91	4.586		
11,500.0	7,712.0	11,247.3	7,429.0	63.6	64.0	51.36	3,438.7	509.5	453.2	351.7	101.53	4.464		
11,600.0	7,712.0	11,347.3	7,429.0	65.4	65.7	51.32	3,538.7	508.6	452.8	348.7	104.15	4.348		
11,700.0	7,712.0	11,447.3	7,429.0	67.1	67.4	51.28	3,638.7	507.7	452.4	345.6	106.77	4.237		
11,800.0	7,712.0	11,547.3	7,429.0	68.8	69.1	51.23	3,738.7	506.9	452.0	342.6	109.39	4.132		
11,900.0	7,712.0	11,647.3	7,429.0	70.5	70.8	51.19	3,838.7	506.0	451.6	339.6	112.01	4.032		
12,000.0	7,712.0	11,747.3	7,429.0	72.2	72.5	51.15	3,938.7	505.1	451.2	336.5	114.63	3.936		
12,100.0	7,712.0	11,847.3	7,429.0	73.9	74.2	51.11	4,038.7	504.3	450.8	333.5	117.25	3.844		
12,200.0	7,712.0	11,947.3	7,429.0	75.7	76.0	51.07	4,138.7	503.4	450.4	330.5	119.87	3.757		
12,300.0	7,712.0	12,047.3	7,429.0	77.4	77.7	51.03	4,238.7	502.5	449.9	327.5	122.49	3.673		
12,329.1	7,712.0	12,074.6	7,429.0	77.9	78.1	51.01	4,265.9	502.3	449.8	326.6	123.23	3.650		
12,333.9	7,712.0	12,074.6	7,429.0	78.0	78.1	51.01	4,265.9	502.3	449.9	326.6	123.29	3.649 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4M-32H-O268 - Hz - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	81.85	3.8	26.7	27.0					
100.0	100.0	100.0	100.0	0.1	0.1	81.85	3.8	26.7	27.0	26.7	0.30	90.989		
200.0	200.0	200.0	200.0	0.3	0.3	81.85	3.8	26.7	27.0	26.4	0.65	41.806		
300.0	300.0	300.0	300.0	0.5	0.5	81.85	3.8	26.7	27.0	26.0	0.99	27.137		
400.0	400.0	400.0	400.0	0.7	0.7	81.85	3.8	26.7	27.0	25.7	1.34	20.088		
500.0	500.0	500.0	500.0	0.8	0.8	-84.79	3.8	26.7	26.9	25.2	1.69	15.886		
594.9	594.9	594.9	594.9	1.0	1.0	-90.00	3.8	26.7	26.8	24.8	2.03	13.210 CC		
600.0	600.0	600.0	600.0	1.0	1.0	-90.37	3.8	26.7	26.8	24.7	2.05	13.095 ES		
700.0	699.9	699.6	699.6	1.2	1.2	-98.13	3.4	27.5	27.7	25.3	2.40	11.522		
800.0	799.7	799.2	799.1	1.4	1.4	-105.62	2.2	29.8	30.4	27.7	2.77	10.980 SF		
900.0	899.4	898.8	898.6	1.6	1.6	-111.83	0.1	33.6	35.0	31.8	3.15	11.092		
924.4	923.7	923.1	922.9	1.7	1.6	-113.10	-0.5	34.7	36.3	33.1	3.25	11.188		
1,000.0	999.0	998.3	998.0	1.8	1.7	-115.86	-2.8	38.9	41.0	37.4	3.54	11.554		
1,100.0	1,098.5	1,097.8	1,097.2	2.0	1.9	-116.93	-6.5	45.7	47.7	43.7	3.95	12.059		
1,200.0	1,198.1	1,197.2	1,196.2	2.3	2.2	-116.03	-11.1	54.0	54.9	50.6	4.38	12.548		
1,300.0	1,297.7	1,296.5	1,294.8	2.5	2.4	-113.86	-16.4	63.8	62.9	58.0	4.82	13.033		
1,400.0	1,397.3	1,395.6	1,393.1	2.7	2.6	-110.92	-22.6	75.1	71.6	66.3	5.29	13.539		
1,500.0	1,496.9	1,494.8	1,491.2	3.0	2.9	-107.67	-29.5	87.7	81.1	75.4	5.76	14.091		
1,600.0	1,596.4	1,594.2	1,589.5	3.2	3.2	-104.98	-36.5	100.6	91.0	84.8	6.23	14.607		
1,700.0	1,696.0	1,693.7	1,687.9	3.4	3.5	-102.82	-43.5	113.4	101.1	94.4	6.71	15.074		
1,800.0	1,795.6	1,793.1	1,786.2	3.6	3.8	-101.06	-50.5	126.3	111.2	104.1	7.18	15.496		
1,900.0	1,895.2	1,892.5	1,884.6	3.9	4.0	-99.59	-57.5	139.1	121.5	113.8	7.65	15.879		
2,000.0	1,994.8	1,991.9	1,982.9	4.1	4.3	-98.35	-64.5	151.9	131.8	123.7	8.12	16.226		
2,100.0	2,094.3	2,091.4	2,081.3	4.3	4.6	-97.29	-71.5	164.8	142.2	133.6	8.59	16.541		
2,200.0	2,193.9	2,190.8	2,179.6	4.6	4.9	-96.37	-78.5	177.6	152.6	143.5	9.07	16.828		
2,300.0	2,293.5	2,290.2	2,278.0	4.8	5.2	-95.57	-85.5	190.4	163.0	153.5	9.54	17.091		
2,400.0	2,393.1	2,389.7	2,376.3	5.0	5.5	-94.87	-92.5	203.3	173.5	163.5	10.01	17.332		
2,500.0	2,492.7	2,489.1	2,474.7	5.3	5.8	-94.25	-99.5	216.1	184.0	173.5	10.48	17.554		
2,600.0	2,592.3	2,588.5	2,573.0	5.5	6.1	-93.69	-106.5	229.0	194.5	183.5	10.95	17.759		
2,700.0	2,691.8	2,687.9	2,671.4	5.7	6.4	-93.19	-113.6	241.8	205.0	193.6	11.42	17.948		
2,800.0	2,791.4	2,787.4	2,769.7	6.0	6.7	-92.74	-120.6	254.6	215.5	203.7	11.89	18.124		
2,900.0	2,891.0	2,886.8	2,868.1	6.2	7.0	-92.34	-127.6	267.5	226.1	213.7	12.36	18.287		
3,000.0	2,990.6	2,986.2	2,966.4	6.5	7.3	-91.97	-134.6	280.3	236.7	223.8	12.83	18.439		
3,100.0	3,090.2	3,085.7	3,064.8	6.7	7.7	-91.63	-141.6	293.1	247.2	233.9	13.31	18.581		
3,200.0	3,189.7	3,185.1	3,163.1	6.9	8.0	-91.31	-148.6	306.0	257.8	244.0	13.78	18.714		
3,300.0	3,289.3	3,284.5	3,261.5	7.2	8.3	-91.03	-155.6	318.8	268.4	254.2	14.25	18.839		
3,400.0	3,388.9	3,384.0	3,359.8	7.4	8.6	-90.76	-162.6	331.7	279.0	264.3	14.72	18.957		
3,500.0	3,488.5	3,483.4	3,458.2	7.6	8.9	-90.52	-169.6	344.5	289.6	274.4	15.19	19.067		
3,600.0	3,588.1	3,582.8	3,556.5	7.9	9.2	-90.29	-176.6	357.3	300.2	284.5	15.66	19.171		
3,700.0	3,687.6	3,682.2	3,654.8	8.1	9.5	-90.07	-183.6	370.2	310.8	294.7	16.13	19.270		
3,800.0	3,787.2	3,781.7	3,753.2	8.3	9.8	-89.87	-190.6	383.0	321.4	304.8	16.60	19.363		
3,900.0	3,886.8	3,881.1	3,851.5	8.6	10.1	-89.69	-197.6	395.8	332.0	315.0	17.07	19.451		
4,000.0	3,986.4	3,980.5	3,949.9	8.8	10.4	-89.51	-204.6	408.7	342.7	325.1	17.54	19.534		
4,100.0	4,086.0	4,080.0	4,048.2	9.0	10.7	-89.35	-211.6	421.5	353.3	335.3	18.01	19.614		
4,200.0	4,185.6	4,179.4	4,146.6	9.3	11.0	-89.20	-218.7	434.3	363.9	345.4	18.48	19.689		
4,300.0	4,285.1	4,278.8	4,244.9	9.5	11.3	-89.05	-225.7	447.2	374.5	355.6	18.95	19.761		
4,400.0	4,384.7	4,378.2	4,343.3	9.8	11.6	-88.91	-232.7	460.0	385.2	365.7	19.42	19.830		
4,500.0	4,484.3	4,477.7	4,441.6	10.0	12.0	-88.78	-239.7	472.9	395.8	375.9	19.89	19.895		
4,600.0	4,583.9	4,577.1	4,540.0	10.2	12.3	-88.66	-246.7	485.7	406.4	386.1	20.36	19.958		
4,700.0	4,683.5	4,676.5	4,638.3	10.5	12.6	-88.54	-253.7	498.5	417.1	396.2	20.83	20.018		
4,800.0	4,783.0	4,776.0	4,736.7	10.7	12.9	-88.43	-260.7	511.4	427.7	406.4	21.30	20.075		
4,900.0	4,882.6	4,875.4	4,835.0	10.9	13.2	-88.32	-267.7	524.2	438.3	416.6	21.78	20.130		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													S32-T2N-R68W (File/Hwy 52) - Hwy 52 4M-32H-O268 - Hz - Plan #2		Offset Site Error:		0.0 ft	
Survey Program:													0-Geolink MWD		Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning				
Measured Depth	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Total	Separation						
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Uncertainty	Factor						
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	Axis							
5,000.0	4,982.2	4,974.8	4,933.4	11.2	13.5	-88.22	-274.7	537.0	449.0	426.7	22.25	20.182						
5,100.0	5,081.8	5,074.3	5,031.7	11.4	13.8	-88.13	-281.7	549.9	459.6	436.9	22.72	20.233						
5,200.0	5,181.4	5,173.7	5,130.1	11.6	14.1	-88.03	-288.7	562.7	470.3	447.1	23.19	20.281						
5,300.0	5,281.0	5,273.1	5,228.4	11.9	14.4	-87.95	-295.7	575.6	480.9	457.2	23.66	20.328						
5,400.0	5,380.5	5,372.5	5,326.8	12.1	14.7	-87.86	-302.7	588.4	491.5	467.4	24.13	20.373						

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4N-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		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	76.97	7.5	32.3	33.2					
100.0	100.0	100.0	100.0	0.1	0.1	76.97	7.5	32.3	33.2	32.9	0.30	111.807		
200.0	200.0	200.0	200.0	0.3	0.3	76.97	7.5	32.3	33.2	32.5	0.65	51.371		
300.0	300.0	300.0	300.0	0.5	0.5	76.97	7.5	32.3	33.2	32.2	0.99	33.346		
400.0	400.0	400.0	400.0	0.7	0.7	76.97	7.5	32.3	33.2	31.8	1.34	24.685		
500.0	500.0	500.0	500.0	0.8	0.8	-89.33	7.5	32.3	33.2	31.5	1.69	19.576		
536.8	536.8	536.8	536.8	0.9	0.9	-90.65	7.5	32.3	33.2	31.3	1.82	18.183 CC		
600.0	600.0	599.9	599.9	1.0	1.0	-93.80	7.5	32.4	33.2	31.2	2.05	16.251 ES		
700.0	699.9	699.4	699.4	1.2	1.2	-99.51	6.9	33.4	34.5	32.1	2.40	14.365		
800.0	799.7	799.0	798.9	1.4	1.4	-105.06	5.5	36.0	37.5	34.7	2.77	13.526		
900.0	899.4	898.5	898.3	1.6	1.6	-109.87	3.3	40.1	42.1	39.0	3.15	13.353 SF		
924.4	923.7	922.8	922.6	1.7	1.6	-110.89	2.6	41.3	43.5	40.3	3.25	13.384		
1,000.0	999.0	997.9	997.6	1.8	1.7	-113.18	0.2	45.7	48.2	44.6	3.55	13.567		
1,100.0	1,098.5	1,097.4	1,096.7	2.0	2.0	-114.12	-3.6	52.9	55.0	51.0	3.96	13.880		
1,200.0	1,198.1	1,196.7	1,195.5	2.3	2.2	-113.38	-8.3	61.5	62.5	58.1	4.39	14.229		
1,300.0	1,297.7	1,295.9	1,294.0	2.5	2.4	-111.51	-13.7	71.6	70.7	65.8	4.84	14.608		
1,400.0	1,397.3	1,394.8	1,392.1	2.7	2.7	-108.93	-20.0	83.2	79.7	74.4	5.30	15.034		
1,500.0	1,496.9	1,493.5	1,489.7	3.0	2.9	-105.92	-27.1	96.3	89.7	83.9	5.78	15.529		
1,600.0	1,596.4	1,591.9	1,586.6	3.2	3.2	-102.71	-34.9	110.7	100.9	94.6	6.26	16.107		
1,700.0	1,696.0	1,689.9	1,682.9	3.4	3.6	-99.46	-43.4	126.6	113.3	106.5	6.75	16.780		
1,800.0	1,795.6	1,787.5	1,778.5	3.6	3.9	-96.28	-52.8	143.9	127.1	119.8	7.24	17.557		
1,900.0	1,895.2	1,886.2	1,875.1	3.9	4.3	-93.45	-62.5	162.0	141.7	134.0	7.72	18.359		
2,000.0	1,994.8	1,984.9	1,971.6	4.1	4.7	-91.16	-72.3	180.1	156.6	148.4	8.19	19.113		
2,100.0	2,094.3	2,083.6	2,068.1	4.3	5.0	-89.26	-82.1	198.2	171.7	163.1	8.67	19.816		
2,200.0	2,193.9	2,182.3	2,164.7	4.6	5.4	-87.67	-91.9	216.3	187.0	177.9	9.14	20.470		
2,300.0	2,293.5	2,281.0	2,261.2	4.8	5.8	-86.33	-101.7	234.4	202.4	192.8	9.60	21.077		
2,400.0	2,393.1	2,379.7	2,357.7	5.0	6.2	-85.17	-111.5	252.6	217.9	207.8	10.07	21.640		
2,500.0	2,492.7	2,478.4	2,454.3	5.3	6.6	-84.17	-121.3	270.7	233.5	222.9	10.53	22.164		
2,600.0	2,592.3	2,577.1	2,550.8	5.5	7.0	-83.29	-131.1	288.8	249.1	238.1	11.00	22.651		
2,700.0	2,691.8	2,675.8	2,647.3	5.7	7.3	-82.51	-140.8	306.9	264.8	253.3	11.46	23.105		
2,800.0	2,791.4	2,774.5	2,743.9	6.0	7.7	-81.83	-150.6	325.0	280.5	268.6	11.92	23.529		
2,900.0	2,891.0	2,873.2	2,840.4	6.2	8.1	-81.21	-160.4	343.2	296.2	283.8	12.38	23.925		
3,000.0	2,990.6	2,971.9	2,936.9	6.5	8.5	-80.66	-170.2	361.3	312.0	299.2	12.84	24.296		
3,100.0	3,090.2	3,070.6	3,033.5	6.7	8.9	-80.16	-180.0	379.4	327.8	314.5	13.30	24.643		
3,200.0	3,189.7	3,169.3	3,130.0	6.9	9.3	-79.71	-189.8	397.5	343.6	329.9	13.76	24.970		
3,300.0	3,289.3	3,268.0	3,226.5	7.2	9.7	-79.29	-199.6	415.6	359.5	345.3	14.22	25.277		
3,400.0	3,388.9	3,366.7	3,323.1	7.4	10.1	-78.91	-209.3	433.8	375.3	360.7	14.68	25.567		
3,500.0	3,488.5	3,465.4	3,419.6	7.6	10.5	-78.57	-219.1	451.9	391.2	376.1	15.14	25.840		
3,600.0	3,588.1	3,564.1	3,516.1	7.9	10.9	-78.25	-228.9	470.0	407.1	391.5	15.60	26.099		
3,700.0	3,687.6	3,662.9	3,612.7	8.1	11.3	-77.95	-238.7	488.1	423.0	407.0	16.06	26.343		
3,800.0	3,787.2	3,761.6	3,709.2	8.3	11.7	-77.67	-248.5	506.2	438.9	422.4	16.52	26.575		
3,900.0	3,886.8	3,860.3	3,805.7	8.6	12.1	-77.42	-258.3	524.3	454.9	437.9	16.98	26.795		
4,000.0	3,986.4	3,959.0	3,902.3	8.8	12.5	-77.18	-268.1	542.5	470.8	453.4	17.43	27.004		
4,100.0	4,086.0	4,057.7	3,998.8	9.0	12.9	-76.96	-277.8	560.6	486.7	468.8	17.89	27.203		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4O-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	83.77	3.8	35.1	35.3					
100.0	100.0	100.0	100.0	0.1	0.1	83.77	3.8	35.1	35.3	0.30	119.063			
200.0	200.0	200.0	200.0	0.3	0.3	83.77	3.8	35.1	35.3	0.65	54.705			
300.0	300.0	300.0	300.0	0.5	0.5	83.77	3.8	35.1	35.3	0.99	35.510			
400.0	400.0	400.0	400.0	0.7	0.7	83.77	3.8	35.1	35.3	1.34	26.287 CC, ES			
500.0	500.0	499.4	499.4	0.8	0.8	-81.79	3.5	35.9	36.0	1.69	21.255			
600.0	600.0	598.8	598.8	1.0	1.0	-83.93	2.7	38.4	38.0	2.04	18.564			
700.0	699.9	698.2	698.0	1.2	1.2	-87.02	1.3	42.4	41.4	2.41	17.200			
800.0	799.7	797.4	797.1	1.4	1.4	-90.56	-0.7	48.1	46.3	2.78	16.661			
900.0	899.4	896.4	895.8	1.6	1.6	-94.11	-3.3	55.4	52.9	3.17	16.657 SF			
924.4	923.7	920.6	919.9	1.7	1.7	-94.94	-4.0	57.4	54.7	3.27	16.717			
1,000.0	999.0	995.3	994.2	1.8	1.8	-96.98	-6.4	64.3	61.0	3.59	17.021			
1,100.0	1,098.5	1,094.0	1,092.3	2.0	2.1	-98.27	-10.1	74.7	70.6	4.01	17.593			
1,200.0	1,198.1	1,192.5	1,189.9	2.3	2.3	-98.41	-14.3	86.7	81.4	4.45	18.292			
1,300.0	1,297.7	1,290.6	1,287.1	2.5	2.6	-97.81	-19.1	100.3	93.4	4.89	19.082			
1,400.0	1,397.3	1,388.5	1,383.6	2.7	2.9	-96.73	-24.3	115.4	106.7	5.35	19.949			
1,500.0	1,496.9	1,485.9	1,479.4	3.0	3.2	-95.38	-30.2	131.9	121.3	5.81	20.886			
1,600.0	1,596.4	1,582.9	1,574.5	3.2	3.6	-93.88	-36.5	149.9	137.3	6.27	21.891			
1,700.0	1,696.0	1,679.3	1,668.7	3.4	4.0	-92.32	-43.3	169.3	154.7	6.74	22.960			
1,800.0	1,795.6	1,775.2	1,762.0	3.6	4.4	-90.76	-50.6	190.1	173.5	7.20	24.090			
1,900.0	1,895.2	1,870.5	1,854.4	3.9	4.8	-89.23	-58.4	212.2	193.8	7.67	25.277			
2,000.0	1,994.8	1,966.3	1,946.9	4.1	5.3	-87.77	-66.6	235.7	215.4	8.13	26.510			
2,100.0	2,094.3	2,063.7	2,040.8	4.3	5.7	-86.51	-75.1	260.0	237.5	8.59	27.648			
2,200.0	2,193.9	2,161.1	2,134.8	4.6	6.2	-85.46	-83.7	284.2	259.6	9.05	28.684			
2,300.0	2,293.5	2,258.5	2,228.8	4.8	6.7	-84.58	-92.2	308.5	281.8	9.51	29.629			
2,400.0	2,393.1	2,356.0	2,322.7	5.0	7.1	-83.82	-100.7	332.7	304.0	9.97	30.494			
2,500.0	2,492.7	2,453.4	2,416.7	5.3	7.6	-83.17	-109.2	357.0	326.3	10.43	31.288			
2,600.0	2,592.3	2,550.8	2,510.7	5.5	8.1	-82.60	-117.7	381.2	348.7	10.89	32.019			
2,700.0	2,691.8	2,648.2	2,604.7	5.7	8.6	-82.10	-126.2	405.5	371.0	11.35	32.694			
2,800.0	2,791.4	2,745.6	2,698.6	6.0	9.0	-81.66	-134.8	429.7	393.4	11.81	33.319			
2,900.0	2,891.0	2,843.1	2,792.6	6.2	9.5	-81.27	-143.3	454.0	415.8	12.27	33.899			
3,000.0	2,990.6	2,940.5	2,886.6	6.5	10.0	-80.91	-151.8	478.2	438.2	12.72	34.440			
3,100.0	3,090.2	3,037.9	2,980.5	6.7	10.5	-80.59	-160.3	502.5	460.6	13.18	34.944			
3,200.0	3,189.7	3,135.3	3,074.5	6.9	11.0	-80.30	-168.8	526.7	483.1	13.64	35.415			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Hwy 52 4P-32H-O268 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	79.59	7.5	40.7	41.4					
100.0	100.0	100.0	100.0	0.1	0.1	79.59	7.5	40.7	41.4	41.1	0.30	139.514		
200.0	200.0	200.0	200.0	0.3	0.3	79.59	7.5	40.7	41.4	40.7	0.65	64.101 CC, ES		
300.0	300.0	298.6	298.6	0.5	0.5	80.19	7.3	42.4	43.1	42.1	0.99	43.386		
400.0	400.0	396.9	396.8	0.7	0.7	81.74	6.9	47.5	48.1	46.7	1.34	35.902		
500.0	500.0	494.9	494.3	0.8	0.9	-81.87	6.2	55.8	56.3	54.6	1.69	33.362		
600.0	600.0	592.2	590.9	1.0	1.2	-81.83	5.1	67.4	67.6	65.6	2.04	33.159 SF		
700.0	699.9	688.7	686.3	1.2	1.5	-82.43	3.9	82.1	82.0	79.6	2.40	34.163		
800.0	799.7	784.2	780.1	1.4	1.8	-83.33	2.3	99.8	99.4	96.6	2.78	35.812		
900.0	899.4	878.6	872.2	1.6	2.2	-84.30	0.5	120.4	119.8	116.6	3.17	37.781		
924.4	923.7	900.0	893.1	1.7	2.3	-84.52	0.1	125.5	125.2	122.0	3.27	38.338		
1,000.0	999.0	971.7	962.4	1.8	2.7	-85.22	-1.5	143.6	143.2	139.6	3.58	39.967		
1,100.0	1,098.5	1,067.9	1,054.9	2.0	3.1	-85.60	-4.2	169.8	168.7	164.7	4.02	42.011		
1,200.0	1,198.1	1,166.0	1,149.3	2.3	3.6	-85.43	-8.6	196.2	193.6	189.2	4.46	43.400		
1,300.0	1,297.7	1,264.5	1,244.1	2.5	4.1	-84.88	-14.6	222.3	217.9	213.0	4.92	44.327		
1,400.0	1,397.3	1,363.2	1,339.1	2.7	4.6	-84.06	-22.2	248.1	241.5	236.1	5.37	44.927		
1,500.0	1,496.9	1,462.1	1,434.2	3.0	5.1	-83.04	-31.6	273.5	264.5	258.6	5.84	45.322		
1,600.0	1,596.4	1,559.5	1,527.9	3.2	5.6	-82.02	-41.7	298.3	287.2	280.9	6.29	45.655		
1,700.0	1,696.0	1,656.8	1,621.4	3.4	6.1	-81.14	-51.8	323.1	309.9	303.2	6.74	45.958		
1,800.0	1,795.6	1,754.1	1,714.9	3.6	6.6	-80.39	-61.9	347.8	332.8	325.6	7.20	46.229		
1,900.0	1,895.2	1,851.3	1,808.4	3.9	7.1	-79.73	-72.0	372.6	355.7	348.0	7.65	46.474		
2,000.0	1,994.8	1,948.6	1,901.9	4.1	7.6	-79.15	-82.1	397.3	378.6	370.5	8.11	46.696		
2,100.0	2,094.3	2,045.9	1,995.5	4.3	8.1	-78.64	-92.2	422.1	401.5	393.0	8.56	46.899		
2,200.0	2,193.9	2,143.1	2,089.0	4.6	8.6	-78.18	-102.3	446.9	424.5	415.5	9.02	47.084		
2,300.0	2,293.5	2,240.4	2,182.5	4.8	9.1	-77.77	-112.4	471.6	447.5	438.1	9.47	47.254		
2,400.0	2,393.1	2,337.7	2,276.0	5.0	9.6	-77.40	-122.5	496.4	470.6	460.6	9.93	47.411		
2,500.0	2,492.7	2,434.9	2,369.5	5.3	10.2	-77.07	-132.6	521.1	493.6	483.2	10.38	47.556		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 33-32 (EXISTING) - ENCANA WELL - ENCANA WELL													Offset Site Error: 0.0 ft	
Survey Program: 926-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	53.80	230.1	314.3	389.6					
100.0	100.0	92.9	92.9	0.1	0.2	53.80	230.0	314.3	389.4	389.1	0.31	1,262.897		
200.0	200.0	193.8	193.8	0.3	0.3	53.81	229.7	314.0	389.1	388.4	0.66	592.372		
300.0	300.0	294.8	294.8	0.5	0.5	53.82	229.3	313.5	388.5	387.5	1.01	386.448		
400.0	400.0	395.7	395.7	0.7	0.7	53.83	228.8	312.9	387.6	386.3	1.35	286.354		
500.0	500.0	496.7	496.7	0.8	0.9	-111.08	228.1	312.1	386.9	385.2	1.70	227.559		
600.0	600.0	597.6	597.6	1.0	1.1	-111.43	227.2	311.1	386.5	384.4	2.05	188.448		
643.1	643.1	641.1	641.1	1.1	1.1	-111.66	226.7	310.6	386.4	384.2	2.20	175.310		
700.0	699.9	698.5	698.5	1.2	1.2	-112.02	226.1	309.9	386.5	384.1	2.41	160.593		
800.0	799.7	799.3	799.2	1.4	1.4	-112.84	224.9	308.5	387.0	384.2	2.77	139.690		
900.0	899.4	900.0	899.9	1.6	1.6	-113.89	223.5	306.9	388.0	384.9	3.14	123.412		
924.4	923.7	924.6	924.5	1.7	1.6	-114.18	223.1	306.5	388.4	385.2	3.24	119.997		
1,000.0	999.0	997.0	996.9	1.8	1.8	-115.20	223.0	304.8	389.8	386.3	3.52	110.736		
1,100.0	1,098.5	1,083.3	1,083.1	2.0	1.9	-116.73	225.4	302.6	393.8	389.9	3.88	101.414		
1,200.0	1,198.1	1,168.9	1,168.5	2.3	2.0	-118.43	231.1	301.5	401.7	397.5	4.25	94.468		
1,300.0	1,297.7	1,255.6	1,254.7	2.5	2.2	-120.31	239.9	301.3	413.2	408.6	4.62	89.357		
1,400.0	1,397.3	1,346.0	1,344.5	2.7	2.4	-122.32	251.4	301.6	427.5	422.5	5.01	85.268		
1,500.0	1,496.9	1,432.2	1,429.6	3.0	2.6	-124.38	264.8	301.5	444.4	439.0	5.40	82.265		
1,600.0	1,596.4	1,524.0	1,519.8	3.2	2.8	-126.62	281.6	301.4	463.9	458.1	5.80	79.921		
1,700.0	1,696.0	1,610.5	1,604.5	3.4	3.1	-128.77	299.1	300.4	485.3	479.1	6.21	78.204		
9,200.0	7,712.0	7,883.1	7,699.4	26.0	27.4	-87.13	1,569.0	71.3	443.1	390.3	52.79	8.394		
9,300.0	7,712.0	7,884.1	7,700.5	27.4	27.4	-87.77	1,569.0	71.3	345.8	291.5	54.30	6.369		
9,400.0	7,712.0	7,885.1	7,701.5	28.9	27.4	-88.41	1,569.0	71.3	250.7	194.9	55.84	4.490		
9,500.0	7,712.0	7,886.1	7,702.5	30.5	27.4	-89.06	1,569.0	71.3	161.6	104.2	57.40	2.816		
9,600.0	7,712.0	7,887.1	7,703.5	32.0	27.4	-89.70	1,569.1	71.3	96.8	37.8	58.97	1.641		
9,633.7	7,712.0	7,887.5	7,703.9	32.6	27.4	-89.92	1,569.1	71.3	90.7	31.2	59.51	1.525 CC, ES, SF		
9,700.0	7,712.0	7,888.2	7,704.5	33.6	27.4	-90.34	1,569.1	71.3	112.3	51.8	60.56	1.855		
9,800.0	7,712.0	7,889.2	7,705.6	35.2	27.4	-90.98	1,569.1	71.3	189.4	127.2	62.16	3.047		
9,900.0	7,712.0	7,890.2	7,706.6	36.8	27.4	-91.62	1,569.1	71.3	281.3	217.5	63.76	4.412		
10,000.0	7,712.0	7,891.2	7,707.6	38.5	27.4	-92.26	1,569.1	71.3	377.3	311.9	65.36	5.772		
10,100.0	7,712.0	7,892.2	7,708.6	40.1	27.4	-92.90	1,569.1	71.3	475.0	408.0	66.97	7.092		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 34-32 (EXISTING) - ENCANA WELL - ENCANA WELL													Offset Site Error:	0.0 ft
Survey Program: 103-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	92.89	-8.2	161.9	162.3					
100.0	100.0	91.0	91.0	0.1	0.1	92.88	-8.2	162.1	162.3	162.1	0.28	571.414		
200.0	200.0	190.4	190.4	0.3	0.3	92.88	-8.2	163.0	163.2	162.5	0.63	259.407		
300.0	300.0	290.7	290.7	0.5	0.5	93.02	-8.7	163.9	164.1	163.1	0.98	167.702		
400.0	400.0	390.9	390.9	0.7	0.7	93.28	-9.4	164.6	164.8	163.5	1.33	124.111		
500.0	500.0	491.1	491.1	0.8	0.8	-71.55	-10.2	165.1	165.2	163.5	1.68	98.386		
600.0	600.0	591.2	591.2	1.0	1.0	-72.25	-10.7	165.7	164.9	162.9	2.03	81.180		
700.0	699.9	691.5	691.5	1.2	1.2	-73.58	-11.1	166.0	164.0	161.6	2.39	68.607		
800.0	799.7	791.5	791.5	1.4	1.4	-75.60	-11.3	166.1	162.5	159.7	2.76	58.921		
900.0	899.4	891.8	891.8	1.6	1.5	-78.33	-11.3	166.1	160.6	157.5	3.14	51.173		
924.4	923.7	916.3	916.3	1.7	1.6	-79.12	-11.3	166.0	160.1	156.9	3.23	49.515		
1,000.0	999.0	991.8	991.7	1.8	1.7	-81.60	-11.2	165.6	158.6	155.1	3.53	44.941		
1,100.0	1,098.5	1,091.6	1,091.6	2.0	1.9	-84.89	-11.3	165.1	157.0	153.1	3.93	39.993		
1,200.0	1,198.1	1,191.9	1,191.9	2.3	2.1	-88.36	-11.2	164.1	155.6	151.2	4.32	35.971		
1,300.0	1,297.7	1,291.0	1,291.0	2.5	2.2	-91.97	-10.7	163.0	154.6	149.9	4.72	32.737		
1,364.1	1,361.5	1,354.6	1,354.6	2.6	2.3	-94.34	-10.3	162.4	154.5	149.5	4.98	31.025 CC		
1,400.0	1,397.3	1,390.5	1,390.4	2.7	2.4	-95.70	-10.0	162.0	154.5	149.4	5.12	30.166		
1,500.0	1,496.9	1,490.6	1,490.5	3.0	2.6	-99.56	-9.1	160.7	154.8	149.3	5.52	28.050 ES		
1,600.0	1,596.4	1,590.7	1,590.6	3.2	2.8	-103.41	-8.4	158.9	155.4	149.5	5.91	26.283		
1,700.0	1,696.0	1,689.3	1,689.2	3.4	2.9	-107.16	-7.7	157.1	156.5	150.2	6.30	24.858		
1,800.0	1,795.6	1,788.0	1,787.8	3.6	3.1	-110.86	-6.5	155.8	159.1	152.5	6.68	23.831		
1,900.0	1,895.2	1,887.0	1,886.9	3.9	3.3	-114.55	-4.9	154.6	162.7	155.6	7.05	23.069		
2,000.0	1,994.8	1,986.4	1,986.2	4.1	3.4	-118.08	-3.2	153.4	167.0	159.6	7.42	22.513		
2,100.0	2,094.3	2,086.9	2,086.7	4.3	3.6	-121.21	-2.3	152.6	171.6	163.8	7.78	22.047		
2,200.0	2,193.9	2,187.1	2,186.9	4.6	3.8	-123.79	-2.5	152.2	176.2	168.0	8.15	21.619		
2,300.0	2,293.5	2,286.9	2,286.7	4.8	4.0	-126.14	-3.1	152.0	180.8	172.3	8.51	21.247		
2,400.0	2,393.1	2,387.0	2,386.8	5.0	4.1	-128.41	-3.8	151.5	185.6	176.7	8.86	20.934		
2,500.0	2,492.7	2,489.7	2,489.5	5.3	4.3	-130.52	-5.3	150.9	189.8	180.6	9.22	20.580		
2,600.0	2,592.3	2,592.9	2,592.6	5.5	4.5	-133.14	-7.4	147.5	192.4	182.9	9.57	20.105		
2,700.0	2,691.8	2,697.5	2,697.0	5.7	4.7	-136.13	-11.0	141.6	193.1	183.2	9.91	19.481		
2,800.0	2,791.4	2,800.4	2,799.6	6.0	4.9	-138.92	-16.2	135.5	192.5	182.3	10.25	18.793		
2,900.0	2,891.0	2,902.1	2,900.7	6.2	5.1	-141.96	-23.2	127.7	190.2	179.6	10.57	17.987		
3,000.0	2,990.6	3,004.4	3,002.4	6.5	5.3	-145.36	-30.1	118.9	188.0	177.1	10.89	17.262		
3,100.0	3,090.2	3,110.5	3,107.4	6.7	5.5	-149.59	-39.8	106.9	183.6	172.4	11.21	16.373		
3,200.0	3,189.7	3,208.5	3,204.0	6.9	5.8	-154.10	-50.1	94.3	178.4	166.9	11.52	15.484		
3,300.0	3,289.3	3,304.9	3,299.2	7.2	6.0	-158.65	-59.2	82.3	175.4	163.6	11.84	14.812		
3,400.0	3,388.9	3,403.7	3,396.7	7.4	6.3	-163.84	-67.4	68.7	174.8	162.6	12.19	14.339		
3,491.2	3,479.8	3,496.1	3,487.4	7.6	6.5	-169.54	-76.5	53.6	174.4	161.8	12.55	13.888		
3,500.0	3,488.5	3,504.6	3,495.8	7.6	6.6	-170.09	-77.4	52.1	174.4	161.8	12.59	13.849		
3,600.0	3,588.1	3,603.4	3,592.5	7.9	6.9	-176.45	-87.6	35.1	175.6	162.6	13.04	13.463		
3,700.0	3,687.6	3,705.9	3,692.6	8.1	7.2	176.64	-99.8	16.3	177.8	164.3	13.58	13.101		
3,800.0	3,787.2	3,806.1	3,790.1	8.3	7.5	169.92	-114.3	-1.6	180.0	165.9	14.17	12.703		
3,900.0	3,886.8	3,906.7	3,887.7	8.6	7.9	163.16	-130.4	-19.6	183.4	168.5	14.83	12.362		
4,000.0	3,986.4	4,001.3	3,979.4	8.8	8.3	156.87	-145.8	-37.2	189.3	173.8	15.51	12.203 SF		
4,100.0	4,086.0	4,097.3	4,072.5	9.0	8.6	150.98	-160.4	-55.7	198.8	182.6	16.20	12.270		
4,200.0	4,185.6	4,196.2	4,168.5	9.3	9.0	145.73	-174.9	-74.3	210.3	193.4	16.87	12.463		
4,300.0	4,285.1	4,295.3	4,265.3	9.5	9.4	141.50	-188.6	-90.9	222.2	204.7	17.50	12.696		
4,400.0	4,384.7	4,396.8	4,364.6	9.8	9.7	138.02	-201.6	-106.8	234.8	216.7	18.10	12.975		
4,500.0	4,484.3	4,496.9	4,463.0	10.0	10.1	135.10	-214.6	-120.7	246.5	227.8	18.67	13.202		
4,600.0	4,583.9	4,594.6	4,558.8	10.2	10.4	132.42	-227.7	-134.5	258.8	239.6	19.24	13.456		
4,700.0	4,683.5	4,696.4	4,658.8	10.5	10.7	130.06	-240.9	-148.0	271.1	251.3	19.77	13.712		
4,800.0	4,783.0	4,798.1	4,759.2	10.7	11.0	128.45	-251.9	-159.7	282.9	262.6	20.27	13.957		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 34-32 (EXISTING) - ENCANA WELL - ENCANA WELL													Offset Site Error:	0.0 ft
Survey Program: 103-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
4,900.0	4,882.6	4,902.5	4,862.9	10.9	11.3	127.69	-260.4	-168.6	293.3	272.6	20.73	14.147		
5,000.0	4,982.2	5,003.7	4,963.7	11.2	11.5	127.56	-266.4	-175.1	302.5	281.3	21.16	14.292		
5,100.0	5,081.8	5,105.5	5,065.3	11.4	11.7	127.81	-270.7	-180.4	311.3	289.7	21.57	14.429		
5,200.0	5,181.4	5,205.1	5,164.8	11.6	11.9	128.44	-273.0	-184.3	319.6	297.6	21.95	14.557		
5,300.0	5,281.0	5,307.4	5,267.0	11.9	12.1	129.40	-273.8	-187.2	327.6	305.3	22.32	14.680		
5,400.0	5,380.5	5,409.7	5,369.3	12.1	12.2	130.63	-273.4	-188.3	334.7	312.0	22.66	14.769		
5,500.0	5,480.1	5,506.9	5,466.5	12.3	12.3	131.92	-272.0	-189.0	342.1	319.1	22.98	14.884		
5,600.0	5,579.7	5,607.0	5,566.5	12.6	12.4	133.32	-269.7	-189.8	350.0	326.7	23.30	15.021		
5,700.0	5,679.3	5,709.4	5,668.9	12.8	12.6	134.66	-267.8	-190.0	357.4	333.8	23.62	15.134		
5,800.0	5,778.9	5,807.9	5,767.4	13.1	12.7	135.87	-266.4	-190.0	364.6	340.7	23.93	15.238		
5,900.0	5,878.4	5,905.4	5,864.9	13.3	12.8	137.02	-264.7	-190.3	372.5	348.2	24.24	15.368		
6,000.0	5,978.0	6,005.7	5,965.2	13.5	13.0	138.05	-263.5	-191.2	380.6	356.0	24.57	15.492		
6,100.0	6,077.6	6,105.4	6,064.9	13.8	13.1	138.88	-263.3	-192.4	388.6	363.7	24.90	15.609		
6,200.0	6,177.2	6,203.0	6,162.5	14.0	13.3	139.71	-262.6	-193.7	397.0	371.8	25.21	15.749		
6,300.0	6,276.8	6,302.0	6,261.5	14.2	13.4	140.62	-261.1	-194.8	405.9	380.4	25.52	15.903		
6,400.0	6,376.3	6,402.8	6,362.2	14.5	13.6	141.47	-259.9	-196.0	414.6	388.8	25.84	16.045		
6,500.0	6,475.9	6,501.3	6,460.7	14.7	13.7	142.24	-259.0	-197.2	423.3	397.2	26.15	16.186		
6,600.0	6,575.5	6,598.8	6,558.2	14.9	13.8	143.02	-257.5	-198.4	432.5	406.1	26.46	16.346		
6,700.0	6,675.1	6,700.0	6,659.4	15.2	14.0	143.89	-255.4	-199.3	441.9	415.1	26.76	16.515		
6,800.0	6,774.7	6,800.1	6,759.5	15.4	14.1	144.83	-252.9	-199.3	450.9	423.8	27.04	16.671		
6,900.0	6,874.3	6,896.2	6,855.5	15.7	14.2	145.69	-250.3	-199.5	460.3	433.0	27.33	16.842		
7,000.0	6,973.8	6,993.3	6,952.5	15.9	14.4	146.50	-247.4	-200.4	470.6	442.9	27.62	17.035		
7,100.0	7,073.4	7,091.7	7,050.9	16.1	14.5	147.30	-244.2	-201.4	481.1	453.2	27.91	17.238		
7,115.3	7,088.6	7,106.7	7,065.9	16.2	14.5	147.43	-243.7	-201.6	482.8	454.8	27.96	17.269		
7,150.0	7,123.3	7,142.1	7,101.3	16.2	14.6	173.30	-242.5	-201.9	485.8	457.7	28.07	17.306		
7,200.0	7,173.2	7,195.7	7,154.9	16.3	14.7	-68.98	-240.9	-202.3	487.4	459.2	28.19	17.287		
7,250.0	7,222.9	7,249.1	7,208.3	16.3	14.7	-57.06	-239.9	-202.6	485.7	457.4	28.27	17.182		
7,300.0	7,272.0	7,301.8	7,260.9	16.2	14.8	-55.00	-239.3	-202.9	480.7	452.4	28.29	16.990		
7,350.0	7,320.1	7,350.9	7,310.1	16.1	14.9	-55.37	-238.9	-202.8	472.9	444.6	28.28	16.724		
7,400.0	7,366.8	7,398.9	7,358.0	16.0	14.9	-57.01	-238.3	-202.5	462.6	434.4	28.25	16.378		
7,450.0	7,411.7	7,445.3	7,404.4	15.8	15.0	-59.61	-237.4	-201.9	450.2	422.0	28.23	15.950		
7,500.0	7,454.6	7,489.2	7,448.3	15.7	15.1	-62.97	-236.4	-201.0	436.2	408.0	28.23	15.451		
7,550.0	7,495.0	7,529.5	7,488.6	15.5	15.1	-66.92	-235.4	-200.2	421.3	393.1	28.26	14.910		
7,600.0	7,532.8	7,567.4	7,526.5	15.2	15.2	-71.37	-234.4	-199.5	406.4	378.1	28.30	14.358		
7,650.0	7,567.6	7,602.6	7,561.7	15.0	15.2	-76.10	-233.3	-198.8	392.2	363.9	28.34	13.840		
7,700.0	7,599.1	7,634.9	7,593.9	14.8	15.2	-80.85	-232.2	-198.2	379.9	351.5	28.33	13.407		
7,750.0	7,627.1	7,664.2	7,623.2	14.7	15.3	-85.36	-231.2	-197.7	370.5	342.2	28.27	13.104		
7,800.0	7,651.4	7,690.5	7,649.4	14.5	15.3	-89.33	-230.3	-197.2	365.1	336.9	28.15	12.969		
7,828.4	7,663.5	7,703.7	7,662.7	14.4	15.3	-91.24	-229.8	-197.0	364.2	336.1	28.07	12.973		
7,850.0	7,671.8	7,712.9	7,671.9	14.4	15.3	-92.48	-229.5	-196.8	364.7	336.7	28.01	13.023		
7,900.0	7,688.1	7,731.5	7,690.4	14.3	15.3	-94.60	-228.8	-196.4	370.1	342.2	27.89	13.273		
7,950.0	7,700.3	7,745.8	7,704.7	14.2	15.4	-95.55	-228.2	-196.1	381.6	353.7	27.84	13.708		
8,000.0	7,708.2	7,755.9	7,714.8	14.3	15.4	-95.23	-227.8	-195.9	398.9	371.0	27.88	14.307		
8,050.0	7,711.8	7,761.6	7,720.5	14.3	15.4	-93.56	-227.6	-195.8	421.6	393.6	28.01	15.049		
8,065.9	7,712.0	7,762.5	7,721.4	14.4	15.4	-92.74	-227.5	-195.7	429.8	401.8	28.07	15.313		
8,100.0	7,712.0	7,763.9	7,722.8	14.4	15.4	-92.96	-227.5	-195.7	448.8	420.7	28.16	15.941		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 44-32 (EXISTING) - ENCANA WELL - ENCANA WELL												Offset Site Error: 0.0 ft	
Survey Program: 134-Geolink MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	56.28	217.3	325.5	391.5				
100.0	100.0	91.5	91.5	0.1	0.1	56.33	217.0	325.7	391.3	391.0	0.29	1,343.613	
143.0	143.0	134.0	134.0	0.2	0.2	56.39	216.6	325.9	391.3	390.8	0.43	904.424	CC, ES
200.0	200.0	185.4	185.4	0.3	0.3	56.46	216.4	326.4	391.6	391.0	0.62	630.675	
300.0	300.0	273.5	273.4	0.5	0.5	56.46	217.8	328.5	394.5	393.6	0.95	415.825	
400.0	400.0	364.9	364.7	0.7	0.6	56.46	220.6	332.8	400.1	398.9	1.28	311.805	
500.0	500.0	453.6	453.1	0.8	0.8	-108.30	224.1	338.8	408.3	406.6	1.61	252.990	
600.0	600.0	543.9	542.9	1.0	1.1	-108.35	228.4	347.3	419.5	417.6	1.95	215.180	
700.0	699.9	634.6	632.9	1.2	1.3	-108.49	233.2	357.7	433.3	431.0	2.29	188.980	
800.0	799.7	722.4	719.7	1.4	1.6	-108.67	238.3	369.6	449.8	447.2	2.64	170.232	
900.0	899.4	815.0	810.9	1.6	1.9	-108.82	243.4	384.8	469.0	465.9	3.02	155.406	
924.4	923.7	838.8	834.3	1.7	2.0	-108.84	244.6	388.9	473.8	470.7	3.12	152.092	
1,000.0	999.0	917.4	911.7	1.8	2.2	-109.01	247.4	402.7	488.6	485.1	3.43	142.351	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 4-8-32 (EXISTING) - ENCANA WELL - PLAN ONLY													Offset Site Error:	0.0 ft
Survey Program: 850-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
4,000.0	3,986.4	4,279.2	4,063.3	8.8	25.7	-174.48	183.1	-0.6	497.9	469.2	28.70	17.350		
4,100.0	4,086.0	4,372.4	4,148.9	9.0	26.4	-178.22	157.8	-27.3	484.7	454.5	30.25	16.026		
4,200.0	4,185.6	4,465.6	4,234.5	9.3	27.1	177.88	132.5	-54.1	474.0	442.2	31.80	14.903		
4,300.0	4,285.1	4,558.8	4,320.2	9.5	27.8	173.84	107.2	-80.8	465.8	432.4	33.34	13.968		
4,400.0	4,384.7	4,651.9	4,405.8	9.8	28.5	169.69	81.9	-107.5	460.3	425.4	34.85	13.209		
4,500.0	4,484.3	4,745.1	4,491.4	10.0	29.2	165.48	56.6	-134.3	457.6	421.3	36.28	12.613		
4,542.8	4,526.9	4,785.1	4,528.1	10.1	29.4	163.67	45.8	-145.7	457.4	420.5	36.87	12.404 CC		
4,600.0	4,583.9	4,838.3	4,577.0	10.2	29.8	161.25	31.3	-161.0	457.8	420.2	37.63	12.166 ES		
4,700.0	4,683.5	4,931.5	4,662.6	10.5	30.5	157.04	6.0	-187.7	460.9	422.0	38.88	11.856		
4,800.0	4,783.0	5,024.7	4,748.3	10.7	31.2	152.91	-19.3	-214.5	466.8	426.8	40.00	11.670		
4,900.0	4,882.6	5,117.9	4,833.9	10.9	31.9	148.88	-44.6	-241.2	475.4	434.4	40.99	11.596 SF		
5,000.0	4,982.2	5,211.1	4,919.5	11.2	32.6	145.00	-69.9	-267.9	486.5	444.6	41.86	11.622		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - Ray Nelson 7-8-32 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program:		0-MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	59.47	200.5	340.1	394.9					
100.0	100.0	91.0	91.0	0.1	0.1	59.47	200.5	340.1	394.8	394.5	0.28	1,393.347		
200.0	200.0	191.0	191.0	0.3	0.3	59.47	200.5	340.1	394.8	394.2	0.63	626.621		
300.0	300.0	291.0	291.0	0.5	0.5	59.47	200.5	340.1	394.8	393.8	0.98	403.227		
400.0	400.0	391.0	391.0	0.7	0.7	59.47	200.5	340.1	394.8	393.5	1.33	297.254 CC		
500.0	500.0	491.0	491.0	0.8	0.8	-105.44	200.5	340.1	395.0	393.4	1.68	235.460 ES		
600.0	600.0	586.9	586.9	1.0	1.0	-105.60	199.7	341.1	396.2	394.2	2.02	195.744		
700.0	699.9	682.3	682.2	1.2	1.2	-105.55	196.9	344.6	399.0	396.6	2.38	167.431		
800.0	799.7	777.6	777.2	1.4	1.4	-105.28	192.1	350.5	403.4	400.6	2.77	145.792		
900.0	899.4	872.7	871.6	1.6	1.6	-104.81	185.3	358.8	409.4	406.2	3.19	128.441		
924.4	923.7	895.8	894.6	1.7	1.7	-104.67	183.3	361.2	411.1	407.8	3.29	124.818		
1,000.0	999.0	967.4	965.3	1.8	1.9	-104.16	176.5	369.6	416.9	413.3	3.65	114.300		
1,100.0	1,098.5	1,061.5	1,057.9	2.0	2.2	-103.16	165.9	382.6	425.8	421.6	4.15	102.638		
1,200.0	1,198.1	1,156.1	1,150.4	2.3	2.5	-101.83	153.3	398.0	436.0	431.4	4.68	93.168		
1,300.0	1,297.7	1,254.8	1,246.7	2.5	2.9	-100.38	139.6	414.9	447.0	441.7	5.24	85.257		
1,400.0	1,397.3	1,353.6	1,343.1	2.7	3.3	-99.00	125.8	431.7	458.2	452.4	5.81	78.857		
1,500.0	1,496.9	1,452.4	1,439.4	3.0	3.7	-97.69	112.1	448.6	469.6	463.3	6.38	73.612		
1,600.0	1,596.4	1,551.2	1,535.8	3.2	4.1	-96.44	98.4	465.4	481.3	474.4	6.95	69.265		
1,700.0	1,696.0	1,649.9	1,632.1	3.4	4.5	-95.25	84.6	482.3	493.2	485.7	7.52	65.623 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R68W (File/Hwy 52) - RAY NELSON 8-8-32 (EXISTING) - ENCANA WELL - SURVEYS												Offset Site Error:	0.0 ft
Survey Program: 70-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis		Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	59.47	200.5	340.1	394.9				
100.0	100.0	87.5	87.5	0.1	0.1	59.48	200.7	340.5	395.3	395.0	0.27	1,438.354	
200.0	200.0	183.5	183.5	0.3	0.3	59.56	200.9	341.8	396.5	395.9	0.62	642.575	
300.0	300.0	280.2	280.1	0.5	0.5	59.94	199.6	345.0	398.7	397.7	0.96	413.490	
400.0	400.0	371.5	371.3	0.7	0.7	60.68	196.9	350.5	402.5	401.2	1.31	307.020	
500.0	500.0	465.9	465.1	0.8	0.9	-103.08	192.7	359.1	408.6	406.9	1.71	239.339	
600.0	600.0	559.4	557.8	1.0	1.2	-101.92	186.8	369.5	416.0	413.9	2.12	196.595	
700.0	699.9	649.4	646.6	1.2	1.5	-100.70	179.7	382.2	426.1	423.5	2.55	166.831	
800.0	799.7	738.9	734.4	1.4	1.8	-99.37	171.1	397.7	438.8	435.7	3.02	145.247	
900.0	899.4	826.6	820.0	1.6	2.2	-98.18	162.9	415.0	454.2	450.7	3.50	129.702	
924.4	923.7	848.5	841.3	1.7	2.3	-97.91	160.9	419.7	458.4	454.8	3.62	126.515	
1,000.0	999.0	917.6	908.3	1.8	2.6	-97.21	154.5	434.9	472.0	468.0	4.02	117.553	
1,100.0	1,098.5	1,007.3	995.0	2.0	3.0	-96.11	144.8	456.2	491.2	486.6	4.56	107.725 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Hwy 52 4K-32H-O268
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5003.0ft (Original Well Elev)
Reference Site:	S32-T2N-R68W (File/Hwy 52)	MD Reference:	WELL @ 5003.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Hwy 52 4K-32H-O268	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5003.0ft (Original Well Elev)

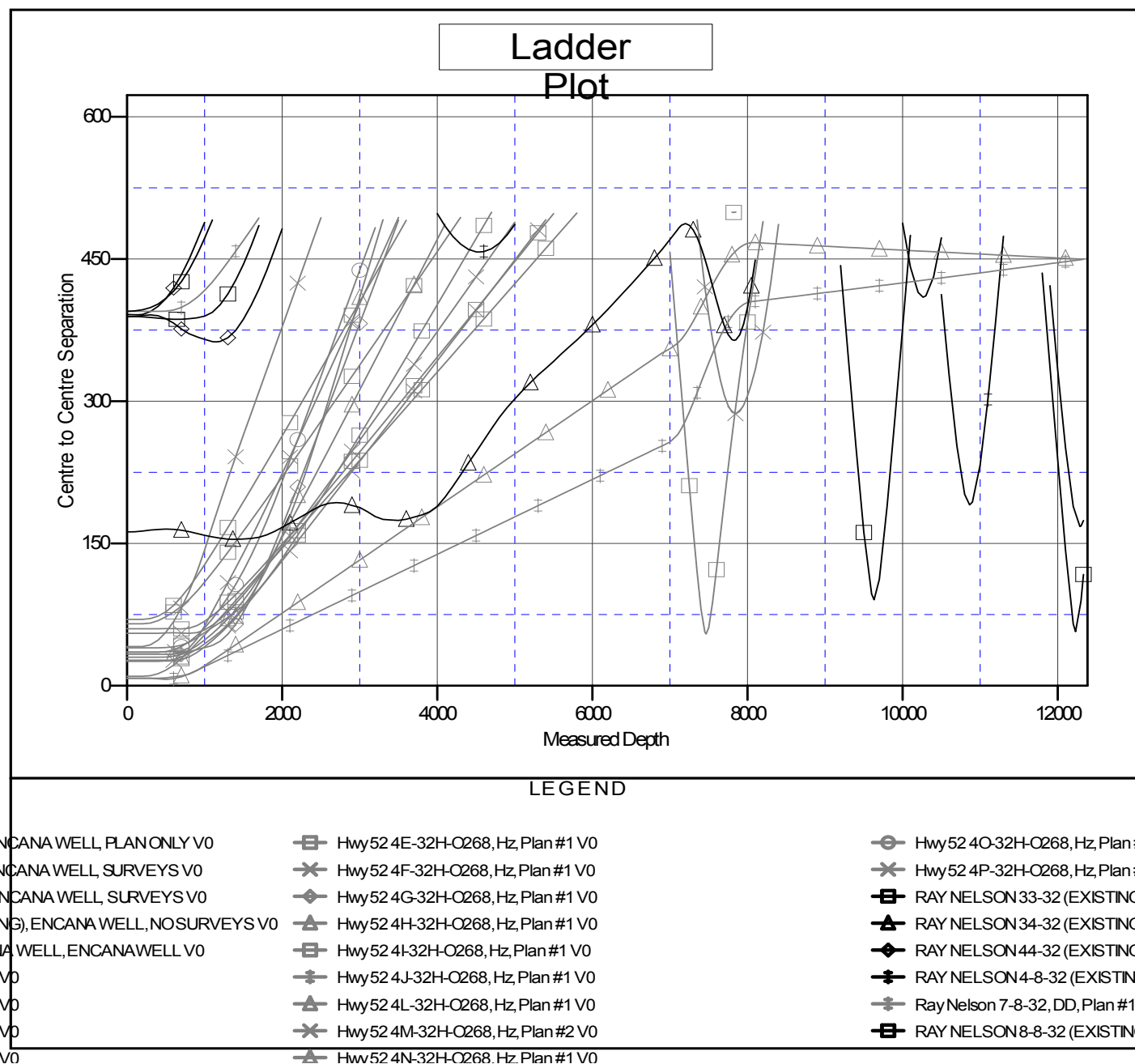
Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Hwy 52 4K-32H-O268

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.31°



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