



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site:	S32-T2N-R64W (Newman)	North Reference:	True
Well:	Newman 2L-32H-C264	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

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-R64W (Newman)			
Site Position:		Northing:	1,281,150.66 ft	Latitude:	40.101468
From:	Lat/Long	Easting:	3,257,734.55 ft	Longitude:	-104.578660
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.60 °

Well	Newman 2L-32H-C264					
Well Position	+N/-S	0.0 ft	Northing:	1,281,150.41 ft	Latitude:	40.101465
	+E/-W	0.0 ft	Easting:	3,257,817.08 ft	Longitude:	-104.578365
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,955.0 ft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/3/2014	8.36	66.74	52,698

Design	Plan #1			
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	180.00

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	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,263.8	10.14	71.40	1,258.5	28.5	84.8	1.00	1.00	0.00	71.40	
5,056.0	10.14	71.40	4,991.5	241.5	717.4	0.00	0.00	0.00	0.00	
6,069.8	0.00	0.00	6,000.0	270.0	802.2	1.00	-1.00	0.00	180.00	
6,673.8	0.00	0.00	6,604.0	270.0	802.2	0.00	0.00	0.00	0.00	
7,573.8	90.00	180.00	7,177.0	-303.0	802.2	10.00	10.00	0.00	180.00	
11,829.1	90.00	180.00	7,177.0	-4,558.2	802.2	0.00	0.00	0.00	0.00	Newman 2L-32H-C26

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Project:	DJ Wattenberg	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site:	S32-T2N-R64W (Newman)	North Reference:	True
Well:	Newman 2L-32H-C264	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	KOP @ 250'
300.0	0.50	71.40	300.0	0.1	0.2	-0.1	1.00	1.00	
400.0	1.50	71.40	400.0	0.6	1.9	-0.6	1.00	1.00	
500.0	2.50	71.40	499.9	1.7	5.2	-1.7	1.00	1.00	
600.0	3.50	71.40	599.8	3.4	10.1	-3.4	1.00	1.00	
700.0	4.50	71.40	699.5	5.6	16.7	-5.6	1.00	1.00	
800.0	5.50	71.40	799.2	8.4	25.0	-8.4	1.00	1.00	
900.0	6.50	71.40	898.6	11.7	34.9	-11.7	1.00	1.00	
961.8	7.12	71.40	960.0	14.1	41.9	-14.1	1.00	1.00	Fox Hills - BASE
1,000.0	7.50	71.40	997.9	15.6	46.5	-15.6	1.00	1.00	
1,100.0	8.50	71.40	1,096.9	20.1	59.6	-20.1	1.00	1.00	
1,200.0	9.50	71.40	1,195.7	25.1	74.5	-25.1	1.00	1.00	
1,263.8	10.14	71.40	1,258.5	28.5	84.8	-28.5	1.00	1.00	EOB; Inc=10.14°
1,300.0	10.14	71.40	1,294.2	30.6	90.8	-30.6	0.00	0.00	
1,400.0	10.14	71.40	1,392.6	36.2	107.5	-36.2	0.00	0.00	
1,500.0	10.14	71.40	1,491.0	41.8	124.2	-41.8	0.00	0.00	
1,600.0	10.14	71.40	1,589.5	47.4	140.9	-47.4	0.00	0.00	
1,700.0	10.14	71.40	1,687.9	53.0	157.6	-53.0	0.00	0.00	
1,800.0	10.14	71.40	1,786.3	58.6	174.2	-58.6	0.00	0.00	
1,900.0	10.14	71.40	1,884.8	64.3	190.9	-64.3	0.00	0.00	
2,000.0	10.14	71.40	1,983.2	69.9	207.6	-69.9	0.00	0.00	
2,100.0	10.14	71.40	2,081.7	75.5	224.3	-75.5	0.00	0.00	
2,200.0	10.14	71.40	2,180.1	81.1	241.0	-81.1	0.00	0.00	
2,300.0	10.14	71.40	2,278.5	86.7	257.6	-86.7	0.00	0.00	
2,400.0	10.14	71.40	2,377.0	92.3	274.3	-92.3	0.00	0.00	
2,500.0	10.14	71.40	2,475.4	97.9	291.0	-97.9	0.00	0.00	
2,600.0	10.14	71.40	2,573.9	103.6	307.7	-103.6	0.00	0.00	
2,700.0	10.14	71.40	2,672.3	109.2	324.4	-109.2	0.00	0.00	
2,800.0	10.14	71.40	2,770.7	114.8	341.1	-114.8	0.00	0.00	
2,900.0	10.14	71.40	2,869.2	120.4	357.7	-120.4	0.00	0.00	
3,000.0	10.14	71.40	2,967.6	126.0	374.4	-126.0	0.00	0.00	
3,100.0	10.14	71.40	3,066.0	131.6	391.1	-131.6	0.00	0.00	
3,200.0	10.14	71.40	3,164.5	137.3	407.8	-137.3	0.00	0.00	
3,300.0	10.14	71.40	3,262.9	142.9	424.5	-142.9	0.00	0.00	
3,400.0	10.14	71.40	3,361.4	148.5	441.2	-148.5	0.00	0.00	
3,500.0	10.14	71.40	3,459.8	154.1	457.8	-154.1	0.00	0.00	
3,600.0	10.14	71.40	3,558.2	159.7	474.5	-159.7	0.00	0.00	
3,700.0	10.14	71.40	3,656.7	165.3	491.2	-165.3	0.00	0.00	
3,800.0	10.14	71.40	3,755.1	170.9	507.9	-170.9	0.00	0.00	
3,900.0	10.14	71.40	3,853.6	176.6	524.6	-176.6	0.00	0.00	
4,000.0	10.14	71.40	3,952.0	182.2	541.3	-182.2	0.00	0.00	
4,100.0	10.14	71.40	4,050.4	187.8	557.9	-187.8	0.00	0.00	
4,200.0	10.14	71.40	4,148.9	193.4	574.6	-193.4	0.00	0.00	
4,300.0	10.14	71.40	4,247.3	199.0	591.3	-199.0	0.00	0.00	
4,400.0	10.14	71.40	4,345.8	204.6	608.0	-204.6	0.00	0.00	
4,457.1	10.14	71.40	4,402.0	207.8	617.5	-207.8	0.00	0.00	Sussex
4,500.0	10.14	71.40	4,444.2	210.2	624.7	-210.2	0.00	0.00	
4,600.0	10.14	71.40	4,542.6	215.9	641.3	-215.9	0.00	0.00	
4,700.0	10.14	71.40	4,641.1	221.5	658.0	-221.5	0.00	0.00	

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Well:	Newman 2L-32H-C264	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,717.2	10.14	71.40	4,658.0	222.4	660.9	-222.4	0.00	0.00	Sussex Marker
4,800.0	10.14	71.40	4,739.5	227.1	674.7	-227.1	0.00	0.00	
4,900.0	10.14	71.40	4,837.9	232.7	691.4	-232.7	0.00	0.00	
5,000.0	10.14	71.40	4,936.4	238.3	708.1	-238.3	0.00	0.00	
5,044.3	10.14	71.40	4,980.0	240.8	715.5	-240.8	0.00	0.00	Shannon
5,056.0	10.14	71.40	4,991.5	241.5	717.4	-241.5	0.00	0.00	Start Drop -1.00
5,100.0	9.70	71.40	5,034.9	243.9	724.6	-243.9	1.00	-1.00	
5,200.0	8.70	71.40	5,133.6	249.0	739.8	-249.0	1.00	-1.00	
5,300.0	7.70	71.40	5,232.5	253.5	753.3	-253.5	1.00	-1.00	
5,400.0	6.70	71.40	5,331.8	257.5	765.1	-257.5	1.00	-1.00	
5,500.0	5.70	71.40	5,431.2	261.0	775.4	-261.0	1.00	-1.00	
5,600.0	4.70	71.40	5,530.8	263.9	784.0	-263.9	1.00	-1.00	
5,700.0	3.70	71.40	5,630.5	266.2	790.9	-266.2	1.00	-1.00	
5,800.0	2.70	71.40	5,730.3	268.0	796.2	-268.0	1.00	-1.00	
5,900.0	1.70	71.40	5,830.3	269.2	799.8	-269.2	1.00	-1.00	
6,000.0	0.70	71.40	5,930.2	269.9	801.8	-269.9	1.00	-1.00	
6,069.8	0.00	0.00	6,000.0	270.0	802.2	-270.0	1.00	-1.00	EOD; Inc=0°
6,100.0	0.00	0.00	6,030.2	270.0	802.2	-270.0	0.00	0.00	
6,154.8	0.00	0.00	6,085.0	270.0	802.2	-270.0	0.00	0.00	Teepee Buttes (*if present)
6,200.0	0.00	0.00	6,130.2	270.0	802.2	-270.0	0.00	0.00	
6,300.0	0.00	0.00	6,230.2	270.0	802.2	-270.0	0.00	0.00	
6,400.0	0.00	0.00	6,330.2	270.0	802.2	-270.0	0.00	0.00	
6,500.0	0.00	0.00	6,430.2	270.0	802.2	-270.0	0.00	0.00	
6,600.0	0.00	0.00	6,530.2	270.0	802.2	-270.0	0.00	0.00	
6,673.8	0.00	0.00	6,604.0	270.0	802.2	-270.0	0.00	0.00	Start Build 10.00
6,700.0	2.62	180.00	6,630.2	269.4	802.2	-269.4	10.00	10.00	
6,800.0	12.62	180.00	6,729.2	256.2	802.2	-256.2	10.00	10.00	
6,900.0	22.62	180.00	6,824.4	225.9	802.2	-225.9	10.00	10.00	
6,909.4	23.55	180.00	6,833.0	222.3	802.2	-222.3	10.00	10.00	Sharon Springs
6,941.4	26.76	180.00	6,862.0	208.6	802.2	-208.6	10.00	10.00	Niobrara
7,000.0	32.62	180.00	6,912.9	179.6	802.2	-179.6	10.00	10.00	
7,040.2	36.64	180.00	6,946.0	156.8	802.2	-156.8	10.00	10.00	B Chalk
7,069.5	39.57	180.00	6,969.0	138.7	802.2	-138.7	10.00	10.00	B Marl
7,100.0	42.62	180.00	6,992.0	118.7	802.2	-118.7	10.00	10.00	
7,139.3	46.55	180.00	7,020.0	91.1	802.2	-91.1	10.00	10.00	C Chalk
7,188.1	51.43	180.00	7,052.0	54.3	802.2	-54.3	10.00	10.00	C Marl
7,200.0	52.62	180.00	7,059.3	44.9	802.2	-44.9	10.00	10.00	
7,300.0	62.62	180.00	7,112.8	-39.4	802.2	39.4	10.00	10.00	
7,400.0	72.62	180.00	7,150.8	-131.8	802.2	131.8	10.00	10.00	
7,410.9	73.71	180.00	7,154.0	-142.2	802.2	142.2	10.00	10.00	Ft. Hayes
7,466.6	79.28	180.00	7,167.0	-196.4	802.2	196.4	10.00	10.00	Codell
7,500.0	82.62	180.00	7,172.3	-229.3	802.2	229.3	10.00	10.00	
7,573.8	90.00	180.00	7,177.0	-303.0	802.2	303.0	10.00	10.00	LP @ 7177' TVD; 90°
7,600.0	90.00	180.00	7,177.0	-329.1	802.2	329.1	0.00	0.00	
7,700.0	90.00	180.00	7,177.0	-429.1	802.2	429.1	0.00	0.00	
7,800.0	90.00	180.00	7,177.0	-529.1	802.2	529.1	0.00	0.00	
7,900.0	90.00	180.00	7,177.0	-629.1	802.2	629.1	0.00	0.00	
8,000.0	90.00	180.00	7,177.0	-729.1	802.2	729.1	0.00	0.00	
8,100.0	90.00	180.00	7,177.0	-829.1	802.2	829.1	0.00	0.00	
8,200.0	90.00	180.00	7,177.0	-929.1	802.2	929.1	0.00	0.00	
8,300.0	90.00	180.00	7,177.0	-1,029.1	802.2	1,029.1	0.00	0.00	
8,400.0	90.00	180.00	7,177.0	-1,129.1	802.2	1,129.1	0.00	0.00	

Planning Report

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Project:	DJ Wattenberg	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site:	S32-T2N-R64W (Newman)	North Reference:	True
Well:	Newman 2L-32H-C264	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,500.0	90.00	180.00	7,177.0	-1,229.1	802.2	1,229.1	0.00	0.00	
8,600.0	90.00	180.00	7,177.0	-1,329.1	802.2	1,329.1	0.00	0.00	
8,700.0	90.00	180.00	7,177.0	-1,429.1	802.2	1,429.1	0.00	0.00	
8,800.0	90.00	180.00	7,177.0	-1,529.1	802.2	1,529.1	0.00	0.00	
8,900.0	90.00	180.00	7,177.0	-1,629.1	802.2	1,629.1	0.00	0.00	
9,000.0	90.00	180.00	7,177.0	-1,729.1	802.2	1,729.1	0.00	0.00	
9,100.0	90.00	180.00	7,177.0	-1,829.1	802.2	1,829.1	0.00	0.00	
9,200.0	90.00	180.00	7,177.0	-1,929.1	802.2	1,929.1	0.00	0.00	
9,300.0	90.00	180.00	7,177.0	-2,029.1	802.2	2,029.1	0.00	0.00	
9,400.0	90.00	180.00	7,177.0	-2,129.1	802.2	2,129.1	0.00	0.00	
9,500.0	90.00	180.00	7,177.0	-2,229.1	802.2	2,229.1	0.00	0.00	
9,600.0	90.00	180.00	7,177.0	-2,329.1	802.2	2,329.1	0.00	0.00	
9,700.0	90.00	180.00	7,177.0	-2,429.1	802.2	2,429.1	0.00	0.00	
9,800.0	90.00	180.00	7,177.0	-2,529.1	802.2	2,529.1	0.00	0.00	
9,900.0	90.00	180.00	7,177.0	-2,629.1	802.2	2,629.1	0.00	0.00	
10,000.0	90.00	180.00	7,177.0	-2,729.1	802.2	2,729.1	0.00	0.00	
10,100.0	90.00	180.00	7,177.0	-2,829.1	802.2	2,829.1	0.00	0.00	
10,200.0	90.00	180.00	7,177.0	-2,929.1	802.2	2,929.1	0.00	0.00	
10,300.0	90.00	180.00	7,177.0	-3,029.1	802.2	3,029.1	0.00	0.00	
10,400.0	90.00	180.00	7,177.0	-3,129.1	802.2	3,129.1	0.00	0.00	
10,500.0	90.00	180.00	7,177.0	-3,229.1	802.2	3,229.1	0.00	0.00	
10,600.0	90.00	180.00	7,177.0	-3,329.1	802.2	3,329.1	0.00	0.00	
10,700.0	90.00	180.00	7,177.0	-3,429.1	802.2	3,429.1	0.00	0.00	
10,800.0	90.00	180.00	7,177.0	-3,529.1	802.2	3,529.1	0.00	0.00	
10,900.0	90.00	180.00	7,177.0	-3,629.1	802.2	3,629.1	0.00	0.00	
11,000.0	90.00	180.00	7,177.0	-3,729.1	802.2	3,729.1	0.00	0.00	
11,100.0	90.00	180.00	7,177.0	-3,829.1	802.2	3,829.1	0.00	0.00	
11,200.0	90.00	180.00	7,177.0	-3,929.1	802.2	3,929.1	0.00	0.00	
11,300.0	90.00	180.00	7,177.0	-4,029.1	802.2	4,029.1	0.00	0.00	
11,400.0	90.00	180.00	7,177.0	-4,129.1	802.2	4,129.1	0.00	0.00	
11,500.0	90.00	180.00	7,177.0	-4,229.1	802.2	4,229.1	0.00	0.00	
11,600.0	90.00	180.00	7,177.0	-4,329.1	802.2	4,329.1	0.00	0.00	
11,700.0	90.00	180.00	7,177.0	-4,429.1	802.2	4,429.1	0.00	0.00	
11,800.0	90.00	180.00	7,177.0	-4,529.1	802.2	4,529.1	0.00	0.00	
11,829.1	90.00	180.00	7,177.0	-4,558.2	802.2	4,558.2	0.00	0.00	TD at 11829.1

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									
Newman 2L-32H-C264 f	0.00	0.00	7,177.0	-4,558.2	802.2	1,276,600.80	3,258,666.56	40.088952	-104.575498
- plan hits target center									
- Point									

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site:	S32-T2N-R64W (Newman)	North Reference:	True
Well:	Newman 2L-32H-C264	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
961.8	960.0	Fox Hills - BASE				
4,457.1	4,402.0	Sussex				
4,717.2	4,658.0	Sussex Marker				
5,044.3	4,980.0	Shannon				
6,154.8	6,085.0	Teepee Buttes (*if present)				
6,909.4	6,833.0	Sharon Springs				
6,941.4	6,862.0	Niobrara				
7,040.2	6,946.0	B Chalk				
7,069.5	6,969.0	B Marl				
7,139.3	7,020.0	C Chalk				
7,188.1	7,052.0	C Marl				
7,410.9	7,154.0	Ft. Hayes				
7,466.6	7,167.0	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
250.0	250.0	0.0	0.0	KOP @ 250'	
1,263.8	1,258.5	28.5	84.8	EOB; Inc=10.14°	
5,056.0	4,991.5	241.5	717.4	Start Drop -1.00	
6,069.8	6,000.0	270.0	802.2	EOD; Inc=0°	
6,673.8	6,604.0	270.0	802.2	Start Build 10.00	
7,573.8	7,177.0	-303.0	802.2	LP @ 7177' TVD; 90°	
11,829.1	7,177.0	-4,558.2	802.2	TD at 11829.1	

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S32-T2N-R64W (Newman)

Newman 2L-32H-C264

HZ

Plan #1

Anticollision Report

04 April, 2014

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	4/4/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,829.1	Plan #1 (HZ)	Geolink MWD	Geolink MWD	

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-R64W (Newman)						
NEWMAN 2-32 (EXISTING) - EXISTING - ENCANA WE						Out of range
Newman 2A-32H-C264 - HZ - Plan #1	200.0	197.0	82.5	81.9	140.315	CC, ES
Newman 2A-32H-C264 - HZ - Plan #1	600.0	582.3	118.8	116.8	60.515	SF
Newman 2B-32H-C264 - HZ - Plan #1	200.0	198.0	75.0	74.4	127.097	CC
Newman 2B-32H-C264 - HZ - Plan #1	229.5	227.5	75.0	74.3	108.260	ES
Newman 2B-32H-C264 - HZ - Plan #1	600.0	586.4	105.2	103.2	53.399	SF
Newman 2C-32H-C264 - HZ - Plan #1	200.0	198.0	67.4	66.8	114.287	CC
Newman 2C-32H-C264 - HZ - Plan #1	300.0	298.0	67.6	66.7	72.022	ES
Newman 2C-32H-C264 - HZ - Plan #1	600.0	589.2	92.2	90.2	46.692	SF
Newman 2D-32H-C264 - HZ - Plan #1	200.0	198.0	59.9	59.3	101.485	CC
Newman 2D-32H-C264 - HZ - Plan #1	300.0	298.0	60.1	59.1	63.978	ES
Newman 2D-32H-C264 - HZ - Plan #1	600.0	591.6	80.0	78.1	40.463	SF
Newman 2E-32H-C264 - HZ - Plan #1	200.0	198.0	52.3	51.7	88.682	CC
Newman 2E-32H-C264 - HZ - Plan #1	300.0	298.0	52.5	51.6	55.935	ES
Newman 2E-32H-C264 - HZ - Plan #1	700.0	694.0	76.2	73.9	32.695	SF
Newman 2F-32H-C264 - HZ - Plan #1	200.0	199.0	45.0	44.5	76.129	CC
Newman 2F-32H-C264 - HZ - Plan #1	300.0	299.0	45.2	44.3	48.100	ES
Newman 2F-32H-C264 - HZ - Plan #1	700.0	696.1	66.5	64.2	28.489	SF
Newman 2G-32H-C264 - HZ - Plan #1	200.0	199.0	37.5	36.9	63.365	CC
Newman 2G-32H-C264 - HZ - Plan #1	300.0	299.0	37.7	36.8	40.072	ES
Newman 2G-32H-C264 - HZ - Plan #1	700.0	697.5	56.3	54.0	24.082	SF
Newman 2H-32H-C264 - HZ - Plan #1	200.0	199.0	29.9	29.3	50.593	CC
Newman 2H-32H-C264 - HZ - Plan #1	300.0	299.0	30.1	29.2	32.039	ES
Newman 2H-32H-C264 - HZ - Plan #1	11,829.1	11,540.4	926.8	766.4	5.777	SF
Newman 2I-32H-C264 - HZ - Plan #1	200.0	200.0	22.4	21.8	37.717	CC
Newman 2I-32H-C264 - HZ - Plan #1	300.0	300.0	22.6	21.6	23.966	ES
Newman 2I-32H-C264 - HZ - Plan #1	11,829.1	11,764.5	674.9	509.8	4.088	SF
Newman 2J-32H-C264 - HZ - Plan #1	200.0	200.0	14.8	14.2	24.991	CC
Newman 2J-32H-C264 - HZ - Plan #1	300.0	300.0	15.0	14.1	15.953	ES
Newman 2J-32H-C264 - HZ - Plan #1	11,829.1	11,646.6	468.3	309.5	2.949	SF
Newman 2K-32H-C264 - HZ - Plan #1	200.0	200.0	7.6	7.0	12.740	CC
Newman 2K-32H-C264 - HZ - Plan #1	300.0	300.0	7.8	6.8	8.238	ES
Newman 2K-32H-C264 - HZ - Plan #1	11,829.1	11,576.8	315.4	195.1	2.622	SF
RUHL 1 (EXISTING) - EXISTING - ENCANA WELL						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 Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2A-32H-C264 - 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		
0.0	0.0	0.0	0.0	0.0	0.0	-89.24	1.1	-82.5	82.6					
100.0	100.0	97.0	97.0	0.1	0.1	-89.24	1.1	-82.5	82.5	82.3	0.24	342.901		
200.0	200.0	197.0	197.0	0.3	0.3	-89.24	1.1	-82.5	82.5	81.9	0.59	140.315 CC, ES		
300.0	300.0	294.3	294.3	0.5	0.5	-160.51	1.4	-84.0	84.3	83.4	0.93	90.406		
400.0	400.0	391.1	391.0	0.6	0.7	-160.36	2.2	-88.8	90.9	89.6	1.28	71.181		
500.0	499.9	487.3	486.8	0.8	0.9	-160.25	3.6	-96.7	102.4	100.8	1.62	63.194		
600.0	599.8	582.3	581.2	1.0	1.1	-160.17	5.5	-107.6	118.8	116.8	1.96	60.515 SF		
700.0	699.5	675.9	673.7	1.2	1.4	-160.11	8.0	-121.3	140.0	137.7	2.30	60.745		
800.0	799.2	767.6	763.9	1.4	1.7	-160.07	10.9	-137.7	165.9	163.2	2.64	62.721		
900.0	898.6	857.3	851.5	1.7	2.1	-160.03	14.2	-156.4	196.4	193.4	2.98	65.811		
1,000.0	997.9	944.5	936.2	2.0	2.5	-159.98	17.9	-177.2	231.3	228.0	3.32	69.640		
1,100.0	1,096.9	1,029.2	1,017.7	2.2	2.9	-159.93	21.9	-199.9	270.5	266.8	3.66	73.974		
1,200.0	1,195.7	1,115.5	1,100.1	2.5	3.4	-159.88	26.4	-225.0	313.5	309.5	4.00	78.427		
1,300.0	1,294.2	1,204.9	1,185.4	2.9	3.9	-159.95	31.1	-251.4	358.1	353.8	4.35	82.366		
1,400.0	1,392.6	1,294.2	1,270.7	3.2	4.4	-160.11	35.8	-277.7	403.1	398.4	4.71	85.640		
1,500.0	1,491.0	1,383.5	1,355.9	3.6	4.9	-160.24	40.4	-304.0	448.1	443.1	5.07	88.426		
1,600.0	1,589.5	1,472.8	1,441.1	3.9	5.4	-160.35	45.1	-330.3	493.1	487.7	5.43	90.823		
1,700.0	1,687.9	1,562.2	1,526.3	4.2	5.9	-160.43	49.8	-356.6	538.1	532.3	5.79	92.906		
1,800.0	1,786.3	1,651.5	1,611.5	4.6	6.4	-160.51	54.4	-382.9	583.1	576.9	6.16	94.733		
1,900.0	1,884.8	1,740.8	1,696.7	4.9	6.9	-160.57	59.1	-409.3	628.1	621.6	6.52	96.347		
2,000.0	1,983.2	1,830.1	1,781.9	5.3	7.4	-160.63	63.8	-435.6	673.1	666.2	6.88	97.783		
2,100.0	2,081.7	1,919.4	1,867.1	5.6	7.9	-160.67	68.5	-461.9	718.1	710.8	7.25	99.069		
2,200.0	2,180.1	2,008.7	1,952.3	6.0	8.4	-160.72	73.1	-488.2	763.1	755.5	7.61	100.226		
2,300.0	2,278.5	2,098.0	2,037.5	6.3	8.9	-160.75	77.8	-514.5	808.1	800.1	7.98	101.273		
2,400.0	2,377.0	2,187.3	2,122.7	6.7	9.5	-160.79	82.5	-540.8	853.1	844.7	8.35	102.225		
2,500.0	2,475.4	2,276.6	2,208.0	7.0	10.0	-160.82	87.2	-567.2	898.1	889.4	8.71	103.094		
2,600.0	2,573.9	2,365.9	2,293.2	7.4	10.5	-160.84	91.8	-593.5	943.1	934.0	9.08	103.890		
2,700.0	2,672.3	2,455.2	2,378.4	7.7	11.0	-160.87	96.5	-619.8	988.1	978.6	9.44	104.622		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2B-32H-C264 - 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	-89.17	1.1	-75.0	75.0					
100.0	100.0	98.0	98.0	0.1	0.1	-89.17	1.1	-75.0	75.0	74.7	0.24	309.948		
200.0	200.0	198.0	198.0	0.3	0.3	-89.17	1.1	-75.0	75.0	74.4	0.59	127.097 CC		
229.5	229.5	227.5	227.5	0.3	0.3	-160.58	1.1	-75.0	75.0	74.3	0.69	108.260 ES		
300.0	300.0	296.8	296.8	0.5	0.5	-160.57	1.2	-75.3	75.6	74.6	0.94	80.661		
400.0	400.0	394.1	394.0	0.6	0.6	-160.55	1.8	-78.5	80.5	79.2	1.28	62.814		
500.0	499.9	490.7	490.5	0.8	0.8	-160.49	3.0	-84.9	90.4	88.7	1.63	55.592		
600.0	599.8	586.4	585.7	1.0	1.1	-160.42	4.9	-94.3	105.2	103.2	1.97	53.399 SF		
700.0	699.5	680.8	679.1	1.2	1.3	-160.33	7.3	-106.7	124.8	122.5	2.31	53.963		
800.0	799.2	773.4	770.5	1.4	1.6	-160.25	10.3	-121.8	149.2	146.5	2.66	56.181		
900.0	898.6	864.0	859.3	1.7	2.0	-160.16	13.7	-139.3	178.1	175.2	3.00	59.453		
1,000.0	997.9	952.3	945.3	2.0	2.4	-160.06	17.6	-159.0	211.6	208.3	3.34	63.420		
1,100.0	1,096.9	1,038.2	1,028.3	2.2	2.8	-159.96	21.9	-180.7	249.4	245.7	3.67	67.868		
1,200.0	1,195.7	1,129.5	1,116.2	2.5	3.2	-159.92	26.7	-205.0	290.0	286.0	4.03	72.052		
1,300.0	1,294.2	1,220.2	1,203.5	2.9	3.7	-160.00	31.4	-229.2	332.1	327.7	4.38	75.812		
1,400.0	1,392.6	1,310.8	1,290.6	3.2	4.1	-160.17	36.2	-253.4	374.4	369.7	4.74	78.950		
1,500.0	1,491.0	1,401.4	1,377.8	3.6	4.6	-160.30	40.9	-277.5	416.8	411.7	5.11	81.619		
1,600.0	1,589.5	1,492.0	1,465.0	3.9	5.1	-160.40	45.7	-301.6	459.2	453.7	5.47	83.917		
1,700.0	1,687.9	1,582.6	1,552.2	4.2	5.5	-160.49	50.4	-325.8	501.5	495.7	5.84	85.913		
1,800.0	1,786.3	1,673.1	1,639.4	4.6	6.0	-160.57	55.2	-349.9	543.9	537.7	6.20	87.664		
1,900.0	1,884.8	1,763.7	1,726.5	4.9	6.5	-160.63	59.9	-374.1	586.2	579.7	6.57	89.211		
2,000.0	1,983.2	1,854.3	1,813.7	5.3	6.9	-160.69	64.7	-398.2	628.6	621.6	6.94	90.588		
2,100.0	2,081.7	1,944.9	1,900.9	5.6	7.4	-160.74	69.4	-422.4	670.9	663.6	7.31	91.820		
2,200.0	2,180.1	2,035.5	1,988.1	6.0	7.9	-160.78	74.2	-446.5	713.3	705.6	7.68	92.930		
2,300.0	2,278.5	2,126.1	2,075.2	6.3	8.3	-160.82	78.9	-470.7	755.7	747.6	8.04	93.934		
2,400.0	2,377.0	2,216.6	2,162.4	6.7	8.8	-160.85	83.6	-494.8	798.0	789.6	8.41	94.847		
2,500.0	2,475.4	2,307.2	2,249.6	7.0	9.3	-160.88	88.4	-519.0	840.4	831.6	8.78	95.680		
2,600.0	2,573.9	2,397.8	2,336.8	7.4	9.7	-160.91	93.1	-543.1	882.7	873.6	9.15	96.444		
2,700.0	2,672.3	2,488.4	2,424.0	7.7	10.2	-160.93	97.9	-567.2	925.1	915.6	9.52	97.146		
2,800.0	2,770.7	2,579.0	2,511.1	8.1	10.7	-160.96	102.6	-591.4	967.5	957.6	9.89	97.795		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2C-32H-C264 - 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	-89.38	0.7	-67.4	67.5					
100.0	100.0	98.0	98.0	0.1	0.1	-89.38	0.7	-67.4	67.4	67.2	0.24	278.709		
200.0	200.0	198.0	198.0	0.3	0.3	-89.38	0.7	-67.4	67.4	66.8	0.59	114.287 CC		
227.8	227.8	225.8	225.8	0.3	0.3	-160.79	0.7	-67.4	67.5	66.8	0.69	98.191		
300.0	300.0	298.0	298.0	0.5	0.5	-160.84	0.7	-67.4	67.6	66.7	0.94	72.022 ES		
400.0	400.0	395.7	395.7	0.6	0.6	-161.00	1.1	-69.0	70.9	69.6	1.28	55.189		
500.0	499.9	492.9	492.7	0.8	0.8	-160.98	2.2	-73.7	79.1	77.4	1.63	48.533		
600.0	599.8	589.2	588.7	1.0	1.0	-160.84	4.1	-81.6	92.2	90.2	1.97	46.692 SF		
700.0	699.5	684.3	683.2	1.2	1.3	-160.62	6.6	-92.5	110.2	107.8	2.32	47.489		
800.0	799.2	777.8	775.6	1.4	1.6	-160.38	9.8	-106.1	132.9	130.2	2.66	49.866		
900.0	898.6	869.4	865.7	1.7	1.9	-160.15	13.7	-122.3	160.2	157.2	3.01	53.246		
1,000.0	997.9	959.0	953.2	2.0	2.2	-159.92	18.0	-140.9	192.1	188.8	3.35	57.294		
1,100.0	1,096.9	1,052.7	1,044.4	2.2	2.6	-159.79	22.9	-161.6	226.9	223.2	3.71	61.206		
1,200.0	1,195.7	1,145.9	1,135.2	2.5	3.0	-159.79	27.8	-182.2	263.3	259.2	4.06	64.786		
1,300.0	1,294.2	1,238.4	1,225.3	2.9	3.4	-159.92	32.6	-202.7	301.1	296.6	4.42	68.045		
1,400.0	1,392.6	1,330.9	1,315.4	3.2	3.8	-160.11	37.4	-223.2	339.1	334.3	4.79	70.773		
1,500.0	1,491.0	1,423.4	1,405.4	3.6	4.2	-160.26	42.3	-243.6	377.2	372.1	5.16	73.094		
1,600.0	1,589.5	1,515.8	1,495.4	3.9	4.6	-160.39	47.1	-264.1	415.3	409.8	5.53	75.091		
1,700.0	1,687.9	1,608.3	1,585.5	4.2	5.0	-160.49	51.9	-284.6	453.4	447.5	5.90	76.827		
1,800.0	1,786.3	1,700.7	1,675.5	4.6	5.4	-160.58	56.7	-305.0	491.5	485.2	6.27	78.348		
1,900.0	1,884.8	1,793.2	1,765.6	4.9	5.8	-160.66	61.6	-325.5	529.6	522.9	6.65	79.693		
2,000.0	1,983.2	1,885.7	1,855.6	5.3	6.2	-160.72	66.4	-346.0	567.7	560.6	7.02	80.889		
2,100.0	2,081.7	1,978.1	1,945.6	5.6	6.6	-160.78	71.2	-366.4	605.7	598.4	7.39	81.960		
2,200.0	2,180.1	2,070.6	2,035.7	6.0	7.0	-160.83	76.0	-386.9	643.8	636.1	7.76	82.925		
2,300.0	2,278.5	2,163.0	2,125.7	6.3	7.4	-160.88	80.9	-407.4	681.9	673.8	8.14	83.797		
2,400.0	2,377.0	2,255.5	2,215.7	6.7	7.8	-160.92	85.7	-427.8	720.0	711.5	8.51	84.591		
2,500.0	2,475.4	2,348.0	2,305.8	7.0	8.2	-160.95	90.5	-448.3	758.1	749.2	8.89	85.316		
2,600.0	2,573.9	2,440.4	2,395.8	7.4	8.6	-160.98	95.3	-468.8	796.2	786.9	9.26	85.980		
2,700.0	2,672.3	2,532.9	2,485.9	7.7	9.0	-161.01	100.2	-489.2	834.3	824.7	9.63	86.590		
2,800.0	2,770.7	2,625.3	2,575.9	8.1	9.5	-161.04	105.0	-509.7	872.4	862.4	10.01	87.154		
2,900.0	2,869.2	2,717.8	2,665.9	8.5	9.9	-161.06	109.8	-530.1	910.5	900.1	10.38	87.676		
3,000.0	2,967.6	2,810.3	2,756.0	8.8	10.3	-161.09	114.6	-550.6	948.6	937.8	10.76	88.161		
3,100.0	3,066.0	2,902.7	2,846.0	9.2	10.7	-161.11	119.4	-571.1	986.7	975.5	11.13	88.612		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2D-32H-C264 - 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	-89.31	0.7	-59.9	59.9					
100.0	100.0	98.0	98.0	0.1	0.1	-89.31	0.7	-59.9	59.9	59.6	0.24	247.488		
200.0	200.0	198.0	198.0	0.3	0.3	-89.31	0.7	-59.9	59.9	59.3	0.59	101.485 CC		
227.8	227.8	225.8	225.8	0.3	0.3	-160.72	0.7	-59.9	59.9	59.2	0.69	87.196		
300.0	300.0	298.0	298.0	0.5	0.5	-160.78	0.7	-59.9	60.1	59.1	0.94	63.978 ES		
400.0	400.0	397.0	397.0	0.6	0.6	-161.20	0.8	-60.2	62.1	60.8	1.29	48.279		
500.0	499.9	494.7	494.6	0.8	0.8	-161.35	1.7	-63.4	68.6	67.0	1.63	42.048		
600.0	599.8	591.6	591.3	1.0	1.0	-161.19	3.5	-69.6	80.0	78.1	1.98	40.463 SF		
700.0	699.5	687.4	686.6	1.2	1.2	-160.83	6.2	-78.9	96.3	94.0	2.32	41.420		
800.0	799.2	781.8	780.2	1.4	1.5	-160.41	9.7	-91.1	117.3	114.6	2.67	43.898		
900.0	898.6	874.4	871.5	1.7	1.8	-159.98	14.0	-105.9	143.0	140.0	3.02	47.339		
1,000.0	997.9	969.2	964.6	2.0	2.1	-159.67	18.9	-122.9	172.3	168.9	3.38	51.024		
1,100.0	1,096.9	1,064.3	1,058.0	2.2	2.4	-159.58	23.8	-140.1	203.1	199.4	3.73	54.390		
1,200.0	1,195.7	1,158.9	1,150.9	2.5	2.8	-159.63	28.7	-157.1	235.5	231.4	4.10	57.516		
1,300.0	1,294.2	1,253.0	1,243.3	2.9	3.1	-159.81	33.6	-174.1	269.4	264.9	4.46	60.402		
1,400.0	1,392.6	1,347.0	1,335.6	3.2	3.4	-160.03	38.5	-191.0	303.6	298.7	4.83	62.830		
1,500.0	1,491.0	1,440.9	1,427.9	3.6	3.8	-160.21	43.4	-208.0	337.8	332.6	5.20	64.897		
1,600.0	1,589.5	1,534.9	1,520.2	3.9	4.1	-160.36	48.2	-224.9	371.9	366.4	5.58	66.675		
1,700.0	1,687.9	1,628.9	1,612.6	4.2	4.5	-160.48	53.1	-241.9	406.1	400.2	5.95	68.221		
1,800.0	1,786.3	1,722.8	1,704.9	4.6	4.8	-160.59	58.0	-258.8	440.3	434.0	6.33	69.577		
1,900.0	1,884.8	1,816.8	1,797.2	4.9	5.2	-160.67	62.9	-275.8	474.5	467.8	6.70	70.775		
2,000.0	1,983.2	1,910.8	1,889.5	5.3	5.5	-160.75	67.8	-292.7	508.7	501.6	7.08	71.841		
2,100.0	2,081.7	2,004.8	1,981.8	5.6	5.9	-160.82	72.6	-309.7	542.9	535.4	7.46	72.796		
2,200.0	2,180.1	2,098.7	2,074.1	6.0	6.2	-160.88	77.5	-326.6	577.1	569.2	7.83	73.656		
2,300.0	2,278.5	2,192.7	2,166.4	6.3	6.6	-160.93	82.4	-343.6	611.3	603.1	8.21	74.434		
2,400.0	2,377.0	2,286.7	2,258.7	6.7	6.9	-160.98	87.3	-360.5	645.5	636.9	8.59	75.142		
2,500.0	2,475.4	2,380.6	2,351.0	7.0	7.3	-161.02	92.2	-377.5	679.7	670.7	8.97	75.788		
2,600.0	2,573.9	2,474.6	2,443.3	7.4	7.6	-161.05	97.0	-394.4	713.8	704.5	9.35	76.381		
2,700.0	2,672.3	2,568.6	2,535.6	7.7	8.0	-161.09	101.9	-411.4	748.0	738.3	9.72	76.926		
2,800.0	2,770.7	2,662.6	2,627.9	8.1	8.3	-161.12	106.8	-428.3	782.2	772.1	10.10	77.429		
2,900.0	2,869.2	2,756.5	2,720.2	8.5	8.7	-161.15	111.7	-445.3	816.4	805.9	10.48	77.895		
3,000.0	2,967.6	2,850.5	2,812.5	8.8	9.0	-161.18	116.6	-462.2	850.6	839.8	10.86	78.327		
3,100.0	3,066.0	2,944.5	2,904.8	9.2	9.4	-161.20	121.4	-479.2	884.8	873.6	11.24	78.730		
3,200.0	3,164.5	3,038.4	2,997.1	9.5	9.7	-161.22	126.3	-496.1	919.0	907.4	11.62	79.106		
3,300.0	3,262.9	3,132.4	3,089.4	9.9	10.1	-161.24	131.2	-513.1	953.2	941.2	12.00	79.457		
3,400.0	3,361.4	3,226.4	3,181.7	10.2	10.4	-161.26	136.1	-530.0	987.4	975.0	12.38	79.786		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2E-32H-C264 - 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	-89.23	0.7	-52.3	52.4					
100.0	100.0	98.0	98.0	0.1	0.1	-89.23	0.7	-52.3	52.3	52.1	0.24	216.267		
200.0	200.0	198.0	198.0	0.3	0.3	-89.23	0.7	-52.3	52.3	51.7	0.59	88.682 CC		
227.8	227.8	225.8	225.8	0.3	0.3	-160.64	0.7	-52.3	52.3	51.7	0.69	76.201		
300.0	300.0	298.0	298.0	0.5	0.5	-160.71	0.7	-52.3	52.5	51.6	0.94	55.935 ES		
400.0	400.0	398.0	398.0	0.6	0.6	-161.31	0.7	-52.3	54.2	52.9	1.29	42.058		
500.0	499.9	497.0	497.0	0.8	0.8	-162.11	1.0	-53.1	58.3	56.6	1.64	35.619		
600.0	599.8	595.7	595.7	1.0	1.0	-162.67	1.9	-55.4	65.6	63.6	1.98	33.084		
700.0	699.5	694.0	693.9	1.2	1.2	-163.00	3.4	-59.4	76.2	73.9	2.33	32.695 SF		
800.0	799.2	791.8	791.5	1.4	1.4	-163.14	5.4	-64.8	90.1	87.4	2.68	33.601		
900.0	898.6	888.8	888.2	1.7	1.6	-163.15	8.0	-71.8	107.1	104.1	3.03	35.340		
1,000.0	997.9	984.9	983.9	2.0	1.8	-163.07	11.2	-80.2	127.3	124.0	3.38	37.640		
1,100.0	1,096.9	1,080.0	1,078.4	2.2	2.0	-162.95	14.8	-90.1	150.7	147.0	3.74	40.324		
1,200.0	1,195.7	1,173.9	1,171.6	2.5	2.2	-162.80	19.0	-101.2	177.1	173.0	4.09	43.278		
1,300.0	1,294.2	1,266.7	1,263.3	2.9	2.5	-162.66	23.7	-113.6	206.5	202.1	4.45	46.374		
1,400.0	1,392.6	1,359.2	1,354.7	3.2	2.8	-162.48	28.8	-127.3	237.6	232.8	4.82	49.284		
1,500.0	1,491.0	1,454.1	1,448.4	3.6	3.1	-162.30	34.2	-141.8	269.1	263.9	5.20	51.792		
1,600.0	1,589.5	1,549.0	1,542.0	3.9	3.4	-162.16	39.6	-156.2	300.7	295.1	5.57	53.948		
1,700.0	1,687.9	1,643.9	1,635.6	4.2	3.7	-162.05	45.1	-170.7	332.2	326.2	5.95	55.819		
1,800.0	1,786.3	1,738.8	1,729.3	4.6	4.0	-161.95	50.5	-185.2	363.7	357.4	6.33	57.456		
1,900.0	1,884.8	1,833.7	1,822.9	4.9	4.3	-161.87	55.9	-199.7	395.2	388.5	6.71	58.900		
2,000.0	1,983.2	1,928.6	1,916.5	5.3	4.6	-161.81	61.3	-214.1	426.8	419.7	7.09	60.183		
2,100.0	2,081.7	2,023.5	2,010.1	5.6	4.9	-161.75	66.8	-228.6	458.3	450.8	7.47	61.330		
2,200.0	2,180.1	2,118.4	2,103.8	6.0	5.2	-161.70	72.2	-243.1	489.8	482.0	7.85	62.361		
2,300.0	2,278.5	2,213.3	2,197.4	6.3	5.5	-161.65	77.6	-257.6	521.3	513.1	8.24	63.293		
2,400.0	2,377.0	2,308.2	2,291.0	6.7	5.8	-161.61	83.0	-272.0	552.9	544.2	8.62	64.139		
2,500.0	2,475.4	2,403.1	2,384.7	7.0	6.2	-161.58	88.5	-286.5	584.4	575.4	9.00	64.911		
2,600.0	2,573.9	2,498.0	2,478.3	7.4	6.5	-161.55	93.9	-301.0	615.9	606.5	9.39	65.617		
2,700.0	2,672.3	2,592.9	2,571.9	7.7	6.8	-161.52	99.3	-315.5	647.4	637.7	9.77	66.266		
2,800.0	2,770.7	2,687.8	2,665.6	8.1	7.1	-161.49	104.7	-329.9	679.0	668.8	10.15	66.865		
2,900.0	2,869.2	2,782.7	2,759.2	8.5	7.4	-161.47	110.2	-344.4	710.5	699.9	10.54	67.418		
3,000.0	2,967.6	2,877.6	2,852.8	8.8	7.7	-161.45	115.6	-358.9	742.0	731.1	10.92	67.931		
3,100.0	3,066.0	2,972.5	2,946.5	9.2	8.0	-161.43	121.0	-373.4	773.5	762.2	11.31	68.408		
3,200.0	3,164.5	3,067.4	3,040.1	9.5	8.4	-161.41	126.4	-387.8	805.1	793.4	11.69	68.853		
3,300.0	3,262.9	3,162.3	3,133.7	9.9	8.7	-161.39	131.9	-402.3	836.6	824.5	12.08	69.269		
3,400.0	3,361.4	3,257.2	3,227.4	10.2	9.0	-161.38	137.3	-416.8	868.1	855.7	12.46	69.658		
3,500.0	3,459.8	3,352.1	3,321.0	10.6	9.3	-161.36	142.7	-431.3	899.6	886.8	12.85	70.023		
3,600.0	3,558.2	3,447.0	3,414.6	10.9	9.6	-161.35	148.1	-445.7	931.2	917.9	13.23	70.367		
3,700.0	3,656.7	3,541.9	3,508.3	11.3	9.9	-161.34	153.6	-460.2	962.7	949.1	13.62	70.690		
3,800.0	3,755.1	3,636.8	3,601.9	11.7	10.3	-161.33	159.0	-474.7	994.2	980.2	14.00	70.996		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2F-32H-C264 - 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	-89.12	0.7	-45.0	45.1					
100.0	100.0	99.0	99.0	0.1	0.1	-89.12	0.7	-45.0	45.0	44.8	0.24	185.267		
200.0	200.0	199.0	199.0	0.3	0.3	-89.12	0.7	-45.0	45.0	44.5	0.59	76.129 CC		
227.8	227.8	226.8	226.8	0.3	0.3	-160.53	0.7	-45.0	45.1	44.4	0.69	65.448		
300.0	300.0	299.0	299.0	0.5	0.5	-160.61	0.7	-45.0	45.2	44.3	0.94	48.100 ES		
400.0	400.0	399.0	399.0	0.6	0.6	-161.31	0.7	-45.0	46.9	45.6	1.29	36.362		
500.0	499.9	498.5	498.5	0.8	0.8	-162.46	0.8	-45.2	50.4	48.8	1.64	30.763		
600.0	599.8	597.5	597.5	1.0	1.0	-163.18	1.6	-46.7	56.9	54.9	1.99	28.638		
700.0	699.5	696.1	696.1	1.2	1.2	-163.41	3.2	-49.7	66.5	64.2	2.34	28.489 SF		
800.0	799.2	794.2	794.0	1.4	1.4	-163.29	5.6	-54.1	79.3	76.6	2.69	29.529		
900.0	898.6	891.7	891.3	1.7	1.5	-162.98	8.7	-60.0	95.2	92.2	3.04	31.328		
1,000.0	997.9	988.3	987.5	2.0	1.8	-162.58	12.6	-67.3	114.2	110.8	3.39	33.633		
1,100.0	1,096.9	1,084.1	1,082.8	2.2	2.0	-162.15	17.3	-75.9	136.2	132.5	3.76	36.278		
1,200.0	1,195.7	1,180.2	1,178.3	2.5	2.2	-161.78	22.5	-85.7	161.0	156.9	4.12	39.075		
1,300.0	1,294.2	1,276.7	1,274.1	2.9	2.4	-161.65	27.8	-95.5	187.4	182.9	4.49	41.717		
1,400.0	1,392.6	1,373.1	1,369.8	3.2	2.7	-161.63	33.1	-105.4	214.0	209.2	4.87	43.968		
1,500.0	1,491.0	1,469.4	1,465.6	3.6	2.9	-161.62	38.4	-115.3	240.7	235.5	5.25	45.880		
1,600.0	1,589.5	1,565.8	1,561.3	3.9	3.2	-161.61	43.7	-125.1	267.4	261.8	5.63	47.522		
1,700.0	1,687.9	1,662.2	1,657.0	4.2	3.4	-161.60	49.0	-135.0	294.1	288.1	6.01	48.948		
1,800.0	1,786.3	1,758.6	1,752.7	4.6	3.7	-161.59	54.3	-144.8	320.8	314.4	6.39	50.196		
1,900.0	1,884.8	1,855.0	1,848.5	4.9	3.9	-161.58	59.6	-154.7	347.4	340.7	6.77	51.297		
2,000.0	1,983.2	1,951.3	1,944.2	5.3	4.2	-161.57	64.9	-164.5	374.1	367.0	7.16	52.275		
2,100.0	2,081.7	2,047.7	2,039.9	5.6	4.4	-161.57	70.2	-174.4	400.8	393.3	7.54	53.150		
2,200.0	2,180.1	2,144.1	2,135.6	6.0	4.7	-161.56	75.4	-184.3	427.5	419.6	7.93	53.938		
2,300.0	2,278.5	2,240.5	2,231.3	6.3	4.9	-161.56	80.7	-194.1	454.2	445.8	8.31	54.649		
2,400.0	2,377.0	2,336.8	2,327.1	6.7	5.2	-161.56	86.0	-204.0	480.8	472.1	8.70	55.295		
2,500.0	2,475.4	2,433.2	2,422.8	7.0	5.4	-161.55	91.3	-213.8	507.5	498.4	9.08	55.885		
2,600.0	2,573.9	2,529.6	2,518.5	7.4	5.7	-161.55	96.6	-223.7	534.2	524.7	9.47	56.425		
2,700.0	2,672.3	2,626.0	2,614.2	7.7	5.9	-161.55	101.9	-233.5	560.9	551.0	9.85	56.921		
2,800.0	2,770.7	2,722.3	2,710.0	8.1	6.2	-161.55	107.2	-243.4	587.6	577.3	10.24	57.379		
2,900.0	2,869.2	2,818.7	2,805.7	8.5	6.5	-161.54	112.5	-253.3	614.2	603.6	10.63	57.802		
3,000.0	2,967.6	2,915.1	2,901.4	8.8	6.7	-161.54	117.8	-263.1	640.9	629.9	11.01	58.195		
3,100.0	3,066.0	3,011.5	2,997.1	9.2	7.0	-161.54	123.1	-273.0	667.6	656.2	11.40	58.560		
3,200.0	3,164.5	3,107.8	3,092.9	9.5	7.2	-161.54	128.4	-282.8	694.3	682.5	11.79	58.900		
3,300.0	3,262.9	3,204.2	3,188.6	9.9	7.5	-161.54	133.7	-292.7	721.0	708.8	12.17	59.219		
3,400.0	3,361.4	3,300.6	3,284.3	10.2	7.7	-161.53	139.0	-302.5	747.6	735.1	12.56	59.517		
3,500.0	3,459.8	3,397.0	3,380.0	10.6	8.0	-161.53	144.3	-312.4	774.3	761.4	12.95	59.797		
3,600.0	3,558.2	3,493.3	3,475.8	10.9	8.2	-161.53	149.6	-322.3	801.0	787.7	13.34	60.060		
3,700.0	3,656.7	3,589.7	3,571.5	11.3	8.5	-161.53	154.9	-332.1	827.7	814.0	13.72	60.308		
3,800.0	3,755.1	3,686.1	3,667.2	11.7	8.8	-161.53	160.1	-342.0	854.4	840.3	14.11	60.542		
3,900.0	3,853.6	3,782.5	3,762.9	12.0	9.0	-161.53	165.4	-351.8	881.0	866.5	14.50	60.763		
4,000.0	3,952.0	3,878.8	3,858.6	12.4	9.3	-161.53	170.7	-361.7	907.7	892.8	14.89	60.973		
4,100.0	4,050.4	3,975.2	3,954.4	12.7	9.5	-161.53	176.0	-371.5	934.4	919.1	15.28	61.171		
4,200.0	4,148.9	4,071.6	4,050.1	13.1	9.8	-161.53	181.3	-381.4	961.1	945.4	15.66	61.360		
4,300.0	4,247.3	4,168.0	4,145.8	13.4	10.0	-161.52	186.6	-391.3	987.8	971.7	16.05	61.539		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2G-32H-C264 - 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	-88.96	0.7	-37.5	37.5					
100.0	100.0	99.0	99.0	0.1	0.1	-88.96	0.7	-37.5	37.5	37.2	0.24	154.205		
200.0	200.0	199.0	199.0	0.3	0.3	-88.96	0.7	-37.5	37.5	36.9	0.59	63.365 CC		
227.8	227.8	226.8	226.8	0.3	0.3	-160.38	0.7	-37.5	37.5	36.8	0.69	54.481		
300.0	300.0	299.0	299.0	0.5	0.5	-160.47	0.7	-37.5	37.7	36.8	0.94	40.072 ES		
400.0	400.0	399.0	399.0	0.6	0.6	-161.32	0.7	-37.5	39.3	38.1	1.29	30.506		
500.0	499.9	498.9	498.9	0.8	0.8	-162.81	0.7	-37.5	42.7	41.0	1.64	26.034		
600.0	599.8	598.3	598.3	1.0	1.0	-163.80	1.4	-38.0	48.2	46.2	1.99	24.232		
700.0	699.5	697.5	697.4	1.2	1.2	-163.59	3.4	-39.5	56.3	54.0	2.34	24.082 SF		
800.0	799.2	796.3	796.2	1.4	1.3	-162.63	6.8	-42.0	67.1	64.4	2.69	24.912		
900.0	898.6	894.8	894.5	1.7	1.5	-161.33	11.6	-45.6	80.5	77.5	3.06	26.361		
1,000.0	997.9	993.6	993.1	2.0	1.7	-160.47	16.8	-49.4	96.0	92.5	3.42	28.040		
1,100.0	1,096.9	1,092.1	1,091.4	2.2	1.9	-160.13	21.9	-53.3	113.0	109.2	3.79	29.799		
1,200.0	1,195.7	1,190.3	1,189.4	2.5	2.1	-160.13	27.1	-57.1	131.7	127.5	4.17	31.615		
1,300.0	1,294.2	1,288.3	1,287.1	2.9	2.3	-160.34	32.3	-60.9	151.9	147.3	4.54	33.440		
1,400.0	1,392.6	1,386.2	1,384.8	3.2	2.5	-160.58	37.4	-64.7	172.4	167.5	4.92	35.016		
1,500.0	1,491.0	1,484.0	1,482.5	3.6	2.7	-160.77	42.5	-68.6	192.9	187.6	5.31	36.357		
1,600.0	1,589.5	1,581.9	1,580.1	3.9	2.9	-160.92	47.7	-72.4	213.4	207.7	5.69	37.512		
1,700.0	1,687.9	1,679.8	1,677.8	4.2	3.1	-161.04	52.8	-76.2	233.9	227.9	6.07	38.516		
1,800.0	1,786.3	1,777.6	1,775.4	4.6	3.3	-161.15	58.0	-80.0	254.4	248.0	6.46	39.397		
1,900.0	1,884.8	1,875.5	1,873.1	4.9	3.5	-161.23	63.1	-83.8	275.0	268.1	6.84	40.176		
2,000.0	1,983.2	1,973.4	1,970.8	5.3	3.7	-161.31	68.3	-87.7	295.5	288.3	7.23	40.869		
2,100.0	2,081.7	2,071.3	2,068.4	5.6	3.9	-161.38	73.4	-91.5	316.0	308.4	7.62	41.490		
2,200.0	2,180.1	2,169.1	2,166.1	6.0	4.1	-161.44	78.6	-95.3	336.5	328.5	8.00	42.049		
2,300.0	2,278.5	2,267.0	2,263.7	6.3	4.3	-161.49	83.7	-99.1	357.0	348.7	8.39	42.556		
2,400.0	2,377.0	2,364.9	2,361.4	6.7	4.5	-161.53	88.9	-102.9	377.6	368.8	8.78	43.016		
2,500.0	2,475.4	2,462.7	2,459.1	7.0	4.7	-161.57	94.0	-106.8	398.1	388.9	9.16	43.437		
2,600.0	2,573.9	2,560.6	2,556.7	7.4	4.9	-161.61	99.2	-110.6	418.6	409.1	9.55	43.823		
2,700.0	2,672.3	2,658.5	2,654.4	7.7	5.1	-161.65	104.3	-114.4	439.1	429.2	9.94	44.177		
2,800.0	2,770.7	2,756.4	2,752.1	8.1	5.3	-161.68	109.4	-118.2	459.6	449.3	10.33	44.505		
2,900.0	2,869.2	2,854.2	2,849.7	8.5	5.5	-161.70	114.6	-122.0	480.2	469.4	10.72	44.809		
3,000.0	2,967.6	2,952.1	2,947.4	8.8	5.7	-161.73	119.7	-125.9	500.7	489.6	11.10	45.090		
3,100.0	3,066.0	3,050.0	3,045.0	9.2	5.9	-161.75	124.9	-129.7	521.2	509.7	11.49	45.353		
3,200.0	3,164.5	3,147.8	3,142.7	9.5	6.2	-161.78	130.0	-133.5	541.7	529.8	11.88	45.597		
3,300.0	3,262.9	3,245.7	3,240.4	9.9	6.4	-161.80	135.2	-137.3	562.2	550.0	12.27	45.826		
3,400.0	3,361.4	3,343.6	3,338.0	10.2	6.6	-161.81	140.3	-141.1	582.8	570.1	12.66	46.041		
3,500.0	3,459.8	3,441.5	3,435.7	10.6	6.8	-161.83	145.5	-144.9	603.3	590.2	13.05	46.243		
3,600.0	3,558.2	3,539.3	3,533.3	10.9	7.0	-161.85	150.6	-148.8	623.8	610.4	13.43	46.432		
3,700.0	3,656.7	3,637.2	3,631.0	11.3	7.2	-161.86	155.8	-152.6	644.3	630.5	13.82	46.611		
3,800.0	3,755.1	3,735.1	3,728.7	11.7	7.4	-161.88	160.9	-156.4	664.9	650.6	14.21	46.780		
3,900.0	3,853.6	3,832.9	3,826.3	12.0	7.6	-161.89	166.0	-160.2	685.4	670.8	14.60	46.940		
4,000.0	3,952.0	3,930.8	3,924.0	12.4	7.8	-161.91	171.2	-164.0	705.9	690.9	14.99	47.091		
4,100.0	4,050.4	4,028.7	4,021.7	12.7	8.0	-161.92	176.3	-167.9	726.4	711.0	15.38	47.235		
4,200.0	4,148.9	4,126.6	4,119.3	13.1	8.2	-161.93	181.5	-171.7	746.9	731.2	15.77	47.371		
4,300.0	4,247.3	4,224.4	4,217.0	13.4	8.4	-161.94	186.6	-175.5	767.5	751.3	16.16	47.501		
4,400.0	4,345.8	4,322.3	4,314.6	13.8	8.6	-161.95	191.8	-179.3	788.0	771.4	16.55	47.625		
4,500.0	4,444.2	4,420.2	4,412.3	14.1	8.8	-161.96	196.9	-183.1	808.5	791.6	16.93	47.742		
4,600.0	4,542.6	4,518.0	4,510.0	14.5	9.0	-161.97	202.1	-187.0	829.0	811.7	17.32	47.855		
4,700.0	4,641.1	4,615.9	4,607.6	14.9	9.2	-161.98	207.2	-190.8	849.5	831.8	17.71	47.962		
4,800.0	4,739.5	4,713.8	4,705.3	15.2	9.4	-161.99	212.4	-194.6	870.1	852.0	18.10	48.065		
4,900.0	4,837.9	4,811.7	4,802.9	15.6	9.6	-161.99	217.5	-198.4	890.6	872.1	18.49	48.163		
5,000.0	4,936.4	4,909.5	4,900.6	15.9	9.8	-162.00	222.6	-202.2	911.1	892.2	18.88	48.257		

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 Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2G-32H-C264 - 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
5,100.0	5,034.9	5,007.4	4,998.3	16.3	10.0	-162.03	227.8	-206.1	931.5	912.2	19.28	48.319	
5,200.0	5,133.6	5,105.6	5,096.3	16.6	10.2	-162.07	233.0	-209.9	950.5	930.8	19.68	48.291	
5,300.0	5,232.5	5,204.1	5,194.5	16.9	10.4	-162.07	238.1	-213.7	967.8	947.7	20.08	48.191	
5,400.0	5,331.8	5,302.8	5,293.1	17.2	10.6	-162.03	243.3	-217.6	983.5	963.1	20.48	48.024	
5,500.0	5,431.2	5,401.8	5,391.8	17.4	10.8	-161.96	248.5	-221.4	997.6	976.8	20.87	47.794	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2H-32H-C264 - 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	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.30	0.4	-29.9	30.0					
100.0	100.0	99.0	99.0	0.1	0.1	-89.30	0.4	-29.9	29.9	29.7	0.24	123.122		
200.0	200.0	199.0	199.0	0.3	0.3	-89.30	0.4	-29.9	29.9	29.3	0.59	50.593 CC		
227.8	227.8	226.8	226.8	0.3	0.3	-160.72	0.4	-29.9	30.0	29.3	0.69	43.508		
300.0	300.0	299.0	299.0	0.5	0.5	-160.84	0.4	-29.9	30.1	29.2	0.94	32.039 ES		
400.0	400.0	399.0	399.0	0.6	0.6	-161.86	0.4	-29.9	31.8	30.5	1.29	24.651		
500.0	499.9	498.9	498.9	0.8	0.8	-163.29	0.6	-30.0	35.2	33.5	1.64	21.462		
600.0	599.8	598.6	598.6	1.0	1.0	-163.03	2.2	-30.4	40.5	38.6	1.99	20.384		
700.0	699.5	698.1	698.0	1.2	1.2	-161.40	5.6	-31.2	48.0	45.6	2.34	20.464		
800.0	799.2	797.5	797.3	1.4	1.4	-159.28	10.4	-32.5	57.5	54.8	2.71	21.234		
900.0	898.6	896.9	896.5	1.7	1.5	-158.08	15.5	-33.8	68.8	65.7	3.08	22.350		
1,000.0	997.9	996.0	995.5	2.0	1.7	-157.68	20.6	-35.0	81.7	78.2	3.45	23.672		
1,100.0	1,096.9	1,095.0	1,094.4	2.2	1.9	-157.77	25.7	-36.3	96.1	92.3	3.82	25.136		
1,200.0	1,195.7	1,193.7	1,192.9	2.5	2.1	-158.15	30.8	-37.6	112.2	108.0	4.20	26.708		
1,300.0	1,294.2	1,292.1	1,291.2	2.9	2.3	-158.71	35.8	-38.9	129.8	125.2	4.58	28.335		
1,400.0	1,392.6	1,390.5	1,389.4	3.2	2.5	-159.22	40.9	-40.1	147.7	142.8	4.96	29.756		
1,500.0	1,491.0	1,488.8	1,487.7	3.6	2.7	-159.62	45.9	-41.4	165.7	160.3	5.35	30.971		
1,600.0	1,589.5	1,587.2	1,585.9	3.9	2.9	-159.94	51.0	-42.7	183.6	177.9	5.73	32.020		
1,700.0	1,687.9	1,685.6	1,684.1	4.2	3.1	-160.20	56.1	-44.0	201.6	195.4	6.12	32.936		
1,800.0	1,786.3	1,784.0	1,782.4	4.6	3.3	-160.42	61.1	-45.2	219.5	213.0	6.51	33.741		
1,900.0	1,884.8	1,882.3	1,880.6	4.9	3.5	-160.61	66.2	-46.5	237.5	230.6	6.89	34.456		
2,000.0	1,983.2	1,980.7	1,978.8	5.3	3.6	-160.77	71.2	-47.8	255.4	248.1	7.28	35.093		
2,100.0	2,081.7	2,079.1	2,077.1	5.6	3.8	-160.91	76.3	-49.1	273.4	265.7	7.66	35.665		
2,200.0	2,180.1	2,177.5	2,175.3	6.0	4.0	-161.03	81.3	-50.3	291.3	283.3	8.05	36.182		
2,300.0	2,278.5	2,275.8	2,273.5	6.3	4.2	-161.14	86.4	-51.6	309.3	300.8	8.44	36.651		
2,400.0	2,377.0	2,374.2	2,371.8	6.7	4.4	-161.24	91.5	-52.9	327.2	318.4	8.83	37.078		
2,500.0	2,475.4	2,472.6	2,470.0	7.0	4.6	-161.32	96.5	-54.1	345.2	336.0	9.21	37.468		
2,600.0	2,573.9	2,570.9	2,568.3	7.4	4.8	-161.40	101.6	-55.4	363.2	353.6	9.60	37.827		
2,700.0	2,672.3	2,669.3	2,666.5	7.7	5.0	-161.47	106.6	-56.7	381.1	371.1	9.99	38.158		
2,800.0	2,770.7	2,767.7	2,764.7	8.1	5.2	-161.54	111.7	-58.0	399.1	388.7	10.38	38.463		
2,900.0	2,869.2	2,866.1	2,863.0	8.5	5.4	-161.59	116.7	-59.2	417.0	406.3	10.76	38.747		
3,000.0	2,967.6	2,964.4	2,961.2	8.8	5.6	-161.65	121.8	-60.5	435.0	423.8	11.15	39.010		
3,100.0	3,066.0	3,062.8	3,059.4	9.2	5.8	-161.70	126.8	-61.8	453.0	441.4	11.54	39.256		
3,200.0	3,164.5	3,161.2	3,157.7	9.5	6.0	-161.74	131.9	-63.1	470.9	459.0	11.93	39.485		
3,300.0	3,262.9	3,259.6	3,255.9	9.9	6.2	-161.79	137.0	-64.3	488.9	476.6	12.31	39.700		
3,400.0	3,361.4	3,357.9	3,354.1	10.2	6.4	-161.83	142.0	-65.6	506.8	494.1	12.70	39.902		
3,500.0	3,459.8	3,456.3	3,452.4	10.6	6.6	-161.86	147.1	-66.9	524.8	511.7	13.09	40.091		
3,600.0	3,558.2	3,554.7	3,550.6	10.9	6.7	-161.90	152.1	-68.2	542.8	529.3	13.48	40.270		
3,700.0	3,656.7	3,653.0	3,648.8	11.3	6.9	-161.93	157.2	-69.4	560.7	546.9	13.87	40.438		
3,800.0	3,755.1	3,751.4	3,747.1	11.7	7.1	-161.96	162.2	-70.7	578.7	564.4	14.25	40.598		
3,900.0	3,853.6	3,849.8	3,845.3	12.0	7.3	-161.99	167.3	-72.0	596.7	582.0	14.64	40.748		
4,000.0	3,952.0	3,948.2	3,943.5	12.4	7.5	-162.01	172.3	-73.2	614.6	599.6	15.03	40.891		
4,100.0	4,050.4	4,046.5	4,041.8	12.7	7.7	-162.04	177.4	-74.5	632.6	617.2	15.42	41.027		
4,200.0	4,148.9	4,144.9	4,140.0	13.1	7.9	-162.06	182.5	-75.8	650.5	634.7	15.81	41.156		
4,300.0	4,247.3	4,243.3	4,238.2	13.4	8.1	-162.08	187.5	-77.1	668.5	652.3	16.20	41.278		
4,400.0	4,345.8	4,341.7	4,336.5	13.8	8.3	-162.11	192.6	-78.3	686.5	669.9	16.58	41.395		
4,500.0	4,444.2	4,440.0	4,434.7	14.1	8.5	-162.13	197.6	-79.6	704.4	687.5	16.97	41.506		
4,600.0	4,542.6	4,538.4	4,532.9	14.5	8.7	-162.14	202.7	-80.9	722.4	705.0	17.36	41.613		
4,700.0	4,641.1	4,636.8	4,631.2	14.9	8.9	-162.16	207.7	-82.2	740.4	722.6	17.75	41.715		
4,800.0	4,739.5	4,735.2	4,729.4	15.2	9.1	-162.18	212.8	-83.4	758.3	740.2	18.14	41.812		
4,900.0	4,837.9	4,833.5	4,827.6	15.6	9.3	-162.20	217.8	-84.7	776.3	757.8	18.53	41.905		
5,000.0	4,936.4	4,931.9	4,925.9	15.9	9.5	-162.21	222.9	-86.0	794.3	775.3	18.91	41.995		

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 Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2H-32H-C264 - 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	5,034.9	5,030.3	5,024.1	16.3	9.7	-162.25	228.0	-87.3	812.1	792.8	19.31	42.056		
5,200.0	5,133.6	5,128.9	5,122.6	16.6	9.9	-162.28	233.0	-88.5	828.5	808.8	19.71	42.033		
5,300.0	5,232.5	5,227.8	5,221.4	16.9	10.0	-162.27	238.1	-89.8	843.3	823.2	20.11	41.933		
5,400.0	5,331.8	5,327.0	5,320.4	17.2	10.2	-162.22	243.2	-91.1	856.4	835.9	20.51	41.764		
5,500.0	5,431.2	5,426.3	5,419.6	17.4	10.4	-162.13	248.3	-92.4	867.9	847.0	20.90	41.528		
5,600.0	5,530.8	5,525.8	5,518.9	17.6	10.6	-162.00	253.4	-93.7	877.8	856.5	21.29	41.230		
5,700.0	5,630.5	5,625.4	5,618.4	17.8	10.8	-161.84	258.5	-95.0	886.0	864.3	21.68	40.873		
5,800.0	5,730.3	5,726.0	5,718.8	18.0	11.0	-161.65	263.7	-96.2	892.5	870.4	22.06	40.462		
5,900.0	5,830.3	5,829.7	5,822.5	18.1	11.2	-161.48	267.7	-97.3	897.1	874.7	22.42	40.010		
6,000.0	5,930.2	5,933.6	5,926.4	18.2	11.4	-161.39	269.9	-97.8	899.6	876.9	22.76	39.530		
6,100.0	6,030.2	6,036.5	6,029.2	18.3	11.6	-89.98	270.4	-97.9	900.1	877.1	23.07	39.010		
6,200.0	6,130.2	6,136.5	6,129.2	18.4	11.7	-89.98	270.4	-97.9	900.1	876.7	23.39	38.478		
6,300.0	6,230.2	6,236.5	6,229.2	18.5	11.9	-89.98	270.4	-97.9	900.1	876.4	23.71	37.958		
6,400.0	6,330.2	6,336.5	6,329.2	18.6	12.0	-89.98	270.4	-97.9	900.1	876.1	24.03	37.452		
6,464.3	6,394.5	6,400.7	6,393.5	18.7	12.1	-89.98	270.2	-97.9	900.1	875.9	24.24	37.136		
6,500.0	6,430.2	6,436.4	6,429.1	18.7	12.2	-90.10	268.4	-97.9	900.1	875.8	24.32	37.015		
6,600.0	6,530.2	6,533.4	6,524.7	18.8	12.2	-91.12	252.3	-97.9	900.3	875.9	24.42	36.870		
6,700.0	6,630.2	6,623.0	6,609.3	18.9	12.1	87.02	223.4	-97.9	901.5	877.1	24.38	36.974		
6,800.0	6,729.2	6,707.1	6,683.8	19.0	12.1	84.94	184.5	-97.9	904.1	879.8	24.24	37.295		
6,900.0	6,824.4	6,787.9	6,749.3	19.0	12.0	83.01	137.2	-97.9	907.5	883.4	24.11	37.646		
7,000.0	6,912.9	6,866.2	6,805.8	18.9	12.0	81.25	83.1	-97.9	911.5	887.4	24.06	37.884		
7,100.0	6,992.0	6,942.5	6,853.2	18.9	12.1	79.71	23.4	-97.9	915.6	891.4	24.16	37.900		
7,200.0	7,059.3	7,017.3	6,891.7	18.9	12.3	78.42	-40.7	-97.9	919.4	895.0	24.45	37.603		
7,300.0	7,112.8	7,091.0	6,921.0	19.0	12.6	77.41	-108.2	-97.9	922.7	897.7	24.95	36.975		
7,400.0	7,150.8	7,163.9	6,941.3	19.3	13.0	76.70	-178.2	-97.9	925.1	899.4	25.69	36.008		
7,500.0	7,172.3	7,236.3	6,952.5	19.7	13.5	76.30	-249.6	-97.9	926.5	899.9	26.66	34.753		
7,600.0	7,177.0	7,315.8	6,955.0	20.3	14.2	76.21	-329.1	-97.9	926.9	898.9	27.98	33.126		
7,700.0	7,177.0	7,415.8	6,955.0	21.0	15.2	76.21	-429.1	-97.9	926.9	897.0	29.90	31.003		
7,800.0	7,177.0	7,515.8	6,955.0	21.8	16.3	76.21	-529.1	-97.9	926.9	894.8	32.06	28.909		
7,900.0	7,177.0	7,615.8	6,955.0	22.7	17.5	76.21	-629.1	-97.9	926.9	892.4	34.43	26.921		
8,000.0	7,177.0	7,715.8	6,955.0	23.7	18.8	76.21	-729.1	-97.9	926.9	889.9	36.96	25.078		
8,100.0	7,177.0	7,815.8	6,955.0	24.8	20.2	76.21	-829.1	-97.9	926.9	887.2	39.62	23.393		
8,200.0	7,177.0	7,915.8	6,955.0	26.0	21.6	76.21	-929.1	-97.9	926.9	884.5	42.39	21.865		
8,300.0	7,177.0	8,015.8	6,955.0	27.3	23.1	76.21	-1,029.1	-97.9	926.9	881.6	45.25	20.484		
8,400.0	7,177.0	8,115.8	6,955.0	28.6	24.6	76.21	-1,129.1	-97.9	926.9	878.7	48.18	19.239		
8,500.0	7,177.0	8,215.8	6,955.0	29.9	26.2	76.21	-1,229.1	-97.9	926.8	875.7	51.16	18.115		
8,600.0	7,177.0	8,315.8	6,955.0	31.3	27.7	76.21	-1,329.1	-97.9	926.8	872.6	54.20	17.100		
8,700.0	7,177.0	8,415.8	6,955.0	32.7	29.3	76.21	-1,429.1	-97.9	926.8	869.6	57.28	16.181		
8,800.0	7,177.0	8,515.8	6,955.0	34.1	30.9	76.21	-1,529.1	-97.9	926.8	866.5	60.39	15.346		
8,900.0	7,177.0	8,615.8	6,955.0	35.6	32.6	76.21	-1,629.1	-97.9	926.8	863.3	63.54	14.587		
9,000.0	7,177.0	8,715.8	6,955.0	37.1	34.2	76.21	-1,729.1	-97.9	926.8	860.1	66.71	13.894		
9,100.0	7,177.0	8,815.8	6,955.0	38.6	35.8	76.21	-1,829.1	-97.9	926.8	856.9	69.90	13.259		
9,200.0	7,177.0	8,915.8	6,955.0	40.2	37.5	76.21	-1,929.1	-97.9	926.8	853.7	73.12	12.676		
9,300.0	7,177.0	9,015.8	6,955.0	41.7	39.2	76.21	-2,029.1	-97.9	926.8	850.5	76.35	12.140		
9,400.0	7,177.0	9,115.8	6,955.0	43.3	40.8	76.21	-2,129.1	-97.9	926.8	847.3	79.59	11.645		
9,500.0	7,177.0	9,215.8	6,955.0	44.9	42.5	76.21	-2,229.1	-97.9	926.8	844.0	82.85	11.187		
9,600.0	7,177.0	9,315.8	6,955.0	46.5	44.2	76.21	-2,329.1	-97.9	926.8	840.7	86.12	10.763		
9,700.0	7,177.0	9,415.8	6,955.0	48.1	45.9	76.21	-2,429.1	-97.9	926.8	837.4	89.40	10.368		
9,800.0	7,177.0	9,515.8	6,955.0	49.7	47.6	76.21	-2,529.1	-97.9	926.8	834.2	92.68	10.000		
9,900.0	7,177.0	9,615.8	6,955.0	51.4	49.3	76.21	-2,629.1	-97.9	926.8	830.9	95.98	9.656		
10,000.0	7,177.0	9,715.8	6,955.0	53.0	51.0	76.21	-2,729.1	-97.9	926.8	827.5	99.29	9.335		
10,100.0	7,177.0	9,815.8	6,955.0	54.6	52.7	76.21	-2,829.1	-97.9	926.8	824.2	102.60	9.034		

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 Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2H-32H-C264 - 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		
10,200.0	7,177.0	9,915.8	6,955.0	56.3	54.4	76.21	-2,929.1	-97.9	926.8	820.9	105.92	8.751		
10,300.0	7,177.0	10,015.8	6,955.0	57.9	56.1	76.21	-3,029.1	-97.9	926.8	817.6	109.24	8.484		
10,400.0	7,177.0	10,115.8	6,955.0	59.6	57.8	76.21	-3,129.1	-97.9	926.8	814.3	112.57	8.234		
10,500.0	7,177.0	10,215.8	6,955.0	61.3	59.5	76.21	-3,229.1	-97.9	926.8	810.9	115.90	7.997		
10,600.0	7,177.0	10,315.8	6,955.0	62.9	61.2	76.21	-3,329.1	-97.9	926.8	807.6	119.24	7.773		
10,700.0	7,177.0	10,415.8	6,955.0	64.6	63.0	76.21	-3,429.1	-97.9	926.8	804.2	122.58	7.561		
10,800.0	7,177.0	10,515.8	6,955.0	66.3	64.7	76.21	-3,529.1	-97.9	926.8	800.9	125.92	7.360		
10,900.0	7,177.0	10,615.8	6,955.0	68.0	66.4	76.21	-3,629.1	-97.9	926.8	797.6	129.27	7.170		
11,000.0	7,177.0	10,715.8	6,955.0	69.7	68.1	76.20	-3,729.1	-97.9	926.8	794.2	132.62	6.988		
11,100.0	7,177.0	10,815.8	6,955.0	71.4	69.9	76.20	-3,829.1	-97.9	926.8	790.8	135.98	6.816		
11,200.0	7,177.0	10,915.8	6,955.0	73.1	71.6	76.20	-3,929.1	-97.9	926.8	787.5	139.33	6.652		
11,300.0	7,177.0	11,015.8	6,955.0	74.8	73.3	76.20	-4,029.1	-97.9	926.8	784.1	142.69	6.495		
11,400.0	7,177.0	11,115.8	6,955.0	76.5	75.1	76.20	-4,129.1	-97.9	926.8	780.8	146.05	6.346		
11,500.0	7,177.0	11,215.8	6,955.0	78.2	76.8	76.20	-4,229.1	-97.9	926.8	777.4	149.42	6.203		
11,600.0	7,177.0	11,315.8	6,955.0	79.9	78.5	76.20	-4,329.1	-97.9	926.8	774.0	152.78	6.066		
11,700.0	7,177.0	11,415.8	6,955.0	81.6	80.2	76.20	-4,429.1	-97.9	926.8	770.7	156.15	5.935		
11,800.0	7,177.0	11,515.8	6,955.0	83.3	82.0	76.20	-4,529.1	-97.9	926.8	767.3	159.52	5.810		
11,822.6	7,177.0	11,538.5	6,955.0	83.7	82.4	76.20	-4,551.8	-97.9	926.8	766.5	160.28	5.782		
11,829.1	7,177.0	11,540.4	6,955.0	83.8	82.4	76.20	-4,553.7	-97.9	926.8	766.4	160.42	5.777 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2L-32H-C264 - 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	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.10	0.4	-22.4	22.4					
100.0	100.0	100.0	100.0	0.1	0.1	-89.10	0.4	-22.4	22.4	22.1	0.24	91.598		
200.0	200.0	200.0	200.0	0.3	0.3	-89.10	0.4	-22.4	22.4	21.8	0.59	37.717 CC		
227.8	227.8	227.8	227.8	0.3	0.3	-160.53	0.4	-22.4	22.4	21.7	0.69	32.459		
300.0	300.0	300.0	300.0	0.5	0.5	-160.68	0.4	-22.4	22.6	21.6	0.94	23.966 ES		
400.0	400.0	400.0	400.0	0.6	0.6	-162.04	0.4	-22.4	24.2	22.9	1.29	18.770		
500.0	499.9	500.2	500.2	0.8	0.8	-162.70	1.1	-22.0	27.1	25.5	1.64	16.528		
600.0	599.8	600.3	600.3	1.0	1.0	-161.37	3.4	-20.7	30.8	28.8	1.99	15.447		
700.0	699.5	700.5	700.4	1.2	1.2	-158.77	7.2	-18.6	35.3	33.0	2.36	15.001		
800.0	799.2	800.4	800.1	1.4	1.4	-155.96	12.3	-15.8	41.0	38.2	2.73	15.021		
900.0	898.6	900.2	899.7	1.7	1.6	-154.62	17.4	-12.9	48.2	45.1	3.11	15.520		
1,000.0	997.9	999.8	999.1	2.0	1.8	-154.39	22.5	-10.1	57.0	53.5	3.49	16.347		
1,100.0	1,096.9	1,099.2	1,098.4	2.2	2.0	-154.85	27.6	-7.3	67.4	63.5	3.87	17.409		
1,200.0	1,195.7	1,198.5	1,197.5	2.5	2.2	-155.71	32.6	-4.5	79.3	75.1	4.25	18.652		
1,300.0	1,294.2	1,297.6	1,296.4	2.9	2.4	-156.75	37.7	-1.7	92.8	88.2	4.64	20.014		
1,400.0	1,392.6	1,396.6	1,395.3	3.2	2.5	-157.63	42.8	1.2	106.6	101.6	5.02	21.227		
1,500.0	1,491.0	1,495.6	1,494.1	3.6	2.7	-158.30	47.9	4.0	120.4	115.0	5.41	22.269		
1,600.0	1,589.5	1,594.7	1,593.0	3.9	2.9	-158.84	52.9	6.8	134.3	128.5	5.79	23.173		
1,700.0	1,687.9	1,693.7	1,691.9	4.2	3.1	-159.27	58.0	9.6	148.1	141.9	6.18	23.965		
1,800.0	1,786.3	1,792.7	1,790.7	4.6	3.3	-159.63	63.1	12.4	162.0	155.4	6.57	24.664		
1,900.0	1,884.8	1,891.8	1,889.6	4.9	3.5	-159.94	68.1	15.2	175.8	168.9	6.95	25.285		
2,000.0	1,983.2	1,990.8	1,988.4	5.3	3.7	-160.20	73.2	18.0	189.7	182.3	7.34	25.841		
2,100.0	2,081.7	2,089.8	2,087.3	5.6	3.9	-160.42	78.3	20.8	203.6	195.8	7.73	26.342		
2,200.0	2,180.1	2,188.8	2,186.2	6.0	4.1	-160.62	83.4	23.6	217.4	209.3	8.11	26.794		
2,300.0	2,278.5	2,287.9	2,285.0	6.3	4.3	-160.79	88.4	26.5	231.3	222.8	8.50	27.205		
2,400.0	2,377.0	2,386.9	2,383.9	6.7	4.5	-160.94	93.5	29.3	245.2	236.3	8.89	27.581		
2,500.0	2,475.4	2,485.9	2,482.7	7.0	4.7	-161.08	98.6	32.1	259.0	249.8	9.28	27.925		
2,600.0	2,573.9	2,585.0	2,581.6	7.4	4.9	-161.20	103.6	34.9	272.9	263.3	9.66	28.241		
2,700.0	2,672.3	2,684.0	2,680.5	7.7	5.1	-161.31	108.7	37.7	286.8	276.7	10.05	28.533		
2,800.0	2,770.7	2,783.0	2,779.3	8.1	5.3	-161.41	113.8	40.5	300.7	290.2	10.44	28.803		
2,900.0	2,869.2	2,882.1	2,878.2	8.5	5.5	-161.50	118.8	43.3	314.6	303.7	10.83	29.054		
3,000.0	2,967.6	2,981.1	2,977.1	8.8	5.7	-161.59	123.9	46.1	328.4	317.2	11.21	29.288		
3,100.0	3,066.0	3,080.1	3,075.9	9.2	5.9	-161.67	129.0	48.9	342.3	330.7	11.60	29.506		
3,200.0	3,164.5	3,179.2	3,174.8	9.5	6.1	-161.74	134.1	51.8	356.2	344.2	11.99	29.709		
3,300.0	3,262.9	3,278.2	3,273.6	9.9	6.3	-161.80	139.1	54.6	370.1	357.7	12.38	29.900		
3,400.0	3,361.4	3,377.2	3,372.5	10.2	6.5	-161.86	144.2	57.4	384.0	371.2	12.77	30.079		
3,500.0	3,459.8	3,476.3	3,471.4	10.6	6.7	-161.92	149.3	60.2	397.8	384.7	13.15	30.248		
3,600.0	3,558.2	3,575.3	3,570.2	10.9	6.9	-161.97	154.3	63.0	411.7	398.2	13.54	30.407		
3,700.0	3,656.7	3,674.3	3,669.1	11.3	7.1	-162.02	159.4	65.8	425.6	411.7	13.93	30.557		
3,800.0	3,755.1	3,773.3	3,767.9	11.7	7.3	-162.07	164.5	68.6	439.5	425.2	14.32	30.699		
3,900.0	3,853.6	3,872.4	3,866.8	12.0	7.5	-162.11	169.6	71.4	453.4	438.7	14.70	30.834		
4,000.0	3,952.0	3,971.4	3,965.7	12.4	7.7	-162.15	174.6	74.2	467.3	452.2	15.09	30.961		
4,100.0	4,050.4	4,070.4	4,064.5	12.7	7.9	-162.19	179.7	77.1	481.2	465.7	15.48	31.082		
4,200.0	4,148.9	4,169.5	4,163.4	13.1	8.1	-162.23	184.8	79.9	495.0	479.2	15.87	31.198		
4,300.0	4,247.3	4,268.5	4,262.2	13.4	8.3	-162.26	189.8	82.7	508.9	492.7	16.26	31.307		
4,400.0	4,345.8	4,367.5	4,361.1	13.8	8.5	-162.30	194.9	85.5	522.8	506.2	16.64	31.412		
4,500.0	4,444.2	4,466.6	4,460.0	14.1	8.7	-162.33	200.0	88.3	536.7	519.7	17.03	31.512		
4,600.0	4,542.6	4,565.6	4,558.8	14.5	8.9	-162.36	205.0	91.1	550.6	533.2	17.42	31.607		
4,700.0	4,641.1	4,664.6	4,657.7	14.9	9.1	-162.38	210.1	93.9	564.5	546.7	17.81	31.698		
4,800.0	4,739.5	4,763.7	4,756.6	15.2	9.3	-162.41	215.2	96.7	578.4	560.2	18.20	31.786		
4,900.0	4,837.9	4,862.7	4,855.4	15.6	9.5	-162.44	220.3	99.5	592.2	573.7	18.58	31.869		
5,000.0	4,936.4	4,961.7	4,954.3	15.9	9.7	-162.46	225.3	102.4	606.1	587.2	18.97	31.949		

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 Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2L-32H-C264 - 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)	
5,100.0	5,034.9	5,060.8	5,053.2	16.3	9.9	-162.50	230.4	105.2	619.9	600.5	19.37	32.009		
5,200.0	5,133.6	5,160.0	5,152.2	16.6	10.1	-162.51	235.5	108.0	632.2	612.4	19.76	31.986		
5,300.0	5,232.5	5,259.4	5,251.5	16.9	10.3	-162.47	240.6	110.8	642.9	622.7	20.16	31.883		
5,400.0	5,331.8	5,359.0	5,350.9	17.2	10.5	-162.39	245.7	113.6	651.9	631.3	20.56	31.705		
5,500.0	5,431.2	5,458.7	5,450.4	17.4	10.7	-162.25	250.8	116.5	659.3	638.3	20.96	31.456		
5,600.0	5,530.8	5,558.5	5,550.1	17.6	10.9	-162.07	255.9	119.3	665.0	643.6	21.35	31.140		
5,700.0	5,630.5	5,658.4	5,649.8	17.8	11.1	-161.84	261.0	122.1	669.1	647.3	21.75	30.761		
5,800.0	5,730.3	5,753.7	5,744.9	18.0	11.3	-161.62	265.4	124.6	671.8	649.7	22.12	30.369		
5,900.0	5,830.3	5,848.3	5,839.4	18.1	11.5	-161.47	268.4	126.2	673.6	651.2	22.46	29.990		
6,000.0	5,930.2	5,942.8	5,934.0	18.2	11.6	-161.38	270.0	127.1	674.7	651.9	22.78	29.619		
6,100.0	6,030.2	6,039.1	6,030.2	18.3	11.8	-89.97	270.4	127.3	674.9	651.8	23.08	29.238		
6,200.0	6,130.2	6,139.1	6,130.2	18.4	11.9	-89.97	270.4	127.3	674.9	651.5	23.40	28.839		
6,300.0	6,230.2	6,239.1	6,230.2	18.5	12.1	-89.97	270.4	127.3	674.9	651.2	23.72	28.450		
6,400.0	6,330.2	6,339.1	6,330.2	18.6	12.3	-89.97	270.4	127.3	674.9	650.8	24.04	28.071		
6,500.0	6,430.2	6,439.1	6,430.2	18.7	12.4	-89.97	270.4	127.3	674.9	650.5	24.36	27.700		
6,600.0	6,530.2	6,539.1	6,530.2	18.8	12.6	-89.97	270.4	127.3	674.9	650.2	24.69	27.338		
6,700.0	6,630.2	6,639.1	6,630.2	18.9	12.7	90.03	269.8	127.3	674.9	649.9	24.99	27.005		
6,800.0	6,729.2	6,739.2	6,729.3	19.0	12.8	90.03	256.5	127.3	674.9	649.8	25.09	26.894		
6,900.0	6,824.4	6,839.2	6,824.5	19.0	12.7	90.03	226.2	127.3	674.9	649.8	25.03	26.959		
7,000.0	6,912.9	6,939.3	6,913.0	18.9	12.7	90.02	179.9	127.3	674.9	650.0	24.90	27.102		
7,100.0	6,992.0	7,039.3	6,992.2	18.9	12.6	90.02	118.9	127.3	674.9	650.1	24.82	27.190		
7,200.0	7,059.3	7,139.4	7,059.5	18.9	12.7	90.02	45.0	127.3	674.9	649.9	24.93	27.072		
7,300.0	7,112.8	7,239.4	7,113.0	19.0	12.9	90.01	-39.4	127.3	674.9	649.5	25.35	26.619		
7,400.0	7,150.8	7,339.4	7,150.9	19.3	13.3	90.01	-131.8	127.3	674.9	648.7	26.18	25.779		
7,500.0	7,172.3	7,439.4	7,172.3	19.7	13.9	90.00	-229.3	127.3	674.9	647.4	27.43	24.604		
7,600.0	7,177.0	7,539.4	7,177.0	20.3	14.7	90.00	-329.1	127.3	674.9	645.8	29.07	23.216		
7,700.0	7,177.0	7,639.4	7,177.0	21.0	15.7	90.00	-429.1	127.3	674.9	643.9	31.02	21.758		
7,800.0	7,177.0	7,739.4	7,177.0	21.8	16.8	90.00	-529.1	127.3	674.9	641.7	33.22	20.317		
7,900.0	7,177.0	7,839.4	7,177.0	22.7	18.0	90.00	-629.1	127.3	674.9	639.2	35.63	18.942		
8,000.0	7,177.0	7,939.4	7,177.0	23.7	19.3	90.00	-729.1	127.3	674.9	636.7	38.21	17.663		
8,100.0	7,177.0	8,039.4	7,177.0	24.8	20.6	90.00	-829.1	127.3	674.9	633.9	40.93	16.489		
8,200.0	7,177.0	8,139.4	7,177.0	26.0	22.0	90.00	-929.1	127.3	674.9	631.1	43.76	15.422		
8,300.0	7,177.0	8,239.4	7,177.0	27.3	23.5	90.00	-1,029.1	127.3	674.9	628.2	46.68	14.456		
8,400.0	7,177.0	8,339.4	7,177.0	28.6	25.0	90.00	-1,129.1	127.3	674.9	625.2	49.68	13.583		
8,500.0	7,177.0	8,439.4	7,177.0	29.9	26.5	90.00	-1,229.1	127.3	674.9	622.1	52.75	12.795		
8,600.0	7,177.0	8,539.4	7,177.0	31.3	28.0	90.00	-1,329.1	127.3	674.9	619.0	55.86	12.081		
8,700.0	7,177.0	8,639.4	7,177.0	32.7	29.6	90.00	-1,429.1	127.3	674.9	615.8	59.02	11.434		
8,800.0	7,177.0	8,739.4	7,177.0	34.1	31.2	90.00	-1,529.1	127.3	674.9	612.7	62.22	10.847		
8,900.0	7,177.0	8,839.4	7,177.0	35.6	32.8	90.00	-1,629.1	127.3	674.9	609.4	65.45	10.312		
9,000.0	7,177.0	8,939.4	7,177.0	37.1	34.4	90.00	-1,729.1	127.3	674.9	606.2	68.70	9.823		
9,100.0	7,177.0	9,039.4	7,177.0	38.6	36.1	90.00	-1,829.1	127.3	674.9	602.9	71.98	9.376		
9,200.0	7,177.0	9,139.4	7,177.0	40.2	37.7	90.00	-1,929.1	127.3	674.9	599.6	75.28	8.965		
9,300.0	7,177.0	9,239.4	7,177.0	41.7	39.4	90.00	-2,029.1	127.3	674.9	596.3	78.60	8.586		
9,400.0	7,177.0	9,339.4	7,177.0	43.3	41.0	90.00	-2,129.1	127.3	674.9	592.9	81.93	8.237		
9,500.0	7,177.0	9,439.4	7,177.0	44.9	42.7	90.00	-2,229.1	127.3	674.9	589.6	85.28	7.913		
9,600.0	7,177.0	9,539.4	7,177.0	46.5	44.4	90.00	-2,329.1	127.3	674.9	586.2	88.64	7.613		
9,700.0	7,177.0	9,639.4	7,177.0	48.1	46.1	90.00	-2,429.1	127.3	674.9	582.8	92.01	7.334		
9,800.0	7,177.0	9,739.4	7,177.0	49.7	47.8	90.00	-2,529.1	127.3	674.9	579.5	95.40	7.074		
9,900.0	7,177.0	9,839.4	7,177.0	51.4	49.5	90.00	-2,629.1	127.3	674.9	576.1	98.79	6.832		
10,000.0	7,177.0	9,939.4	7,177.0	53.0	51.1	90.00	-2,729.1	127.3	674.9	572.7	102.18	6.604		
10,100.0	7,177.0	10,039.4	7,177.0	54.6	52.8	90.00	-2,829.1	127.3	674.9	569.3	105.59	6.391		
10,200.0	7,177.0	10,139.4	7,177.0	56.3	54.6	90.00	-2,929.1	127.3	674.9	565.9	109.00	6.191		

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 Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2L-32H-C264 - 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		
10,300.0	7,177.0	10,239.4	7,177.0	57.9	56.3	90.00	-3,029.1	127.3	674.9	562.4	112.42	6.003		
10,400.0	7,177.0	10,339.4	7,177.0	59.6	58.0	90.00	-3,129.1	127.3	674.9	559.0	115.84	5.826		
10,500.0	7,177.0	10,439.4	7,177.0	61.3	59.7	90.00	-3,229.1	127.3	674.9	555.6	119.27	5.658		
10,600.0	7,177.0	10,539.4	7,177.0	62.9	61.4	90.00	-3,329.1	127.3	674.9	552.2	122.70	5.500		
10,700.0	7,177.0	10,639.4	7,177.0	64.6	63.1	90.00	-3,429.1	127.3	674.9	548.7	126.14	5.350		
10,800.0	7,177.0	10,739.4	7,177.0	66.3	64.8	90.00	-3,529.1	127.3	674.9	545.3	129.58	5.208		
10,900.0	7,177.0	10,839.4	7,177.0	68.0	66.6	90.00	-3,629.1	127.3	674.9	541.8	133.02	5.073		
11,000.0	7,177.0	10,939.4	7,177.0	69.7	68.3	90.00	-3,729.1	127.3	674.9	538.4	136.47	4.945		
11,100.0	7,177.0	11,039.4	7,177.0	71.4	70.0	90.00	-3,829.1	127.3	674.9	534.9	139.92	4.823		
11,200.0	7,177.0	11,139.4	7,177.0	73.1	71.7	90.00	-3,929.1	127.3	674.9	531.5	143.38	4.707		
11,300.0	7,177.0	11,239.4	7,177.0	74.8	73.5	90.00	-4,029.1	127.3	674.9	528.0	146.83	4.596		
11,400.0	7,177.0	11,339.4	7,177.0	76.5	75.2	90.00	-4,129.1	127.3	674.9	524.6	150.29	4.490		
11,500.0	7,177.0	11,439.4	7,177.0	78.2	76.9	90.00	-4,229.1	127.3	674.9	521.1	153.75	4.389		
11,600.0	7,177.0	11,539.4	7,177.0	79.9	78.6	90.00	-4,329.1	127.3	674.9	517.6	157.21	4.293		
11,700.0	7,177.0	11,639.4	7,177.0	81.6	80.4	90.00	-4,429.1	127.3	674.9	514.2	160.68	4.200		
11,800.0	7,177.0	11,739.4	7,177.0	83.3	82.1	90.00	-4,529.1	127.3	674.9	510.7	164.14	4.111		
11,822.8	7,177.0	11,762.3	7,177.0	83.7	82.5	90.00	-4,552.0	127.3	674.9	509.9	164.94	4.092		
11,829.1	7,177.0	11,764.5	7,177.0	83.8	82.5	90.00	-4,554.2	127.3	674.9	509.8	165.08	4.088 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2J-32H-C264 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-88.69	0.3	-14.8	14.8					
100.0	100.0	100.0	100.0	0.1	0.1	-88.69	0.3	-14.8	14.8	14.6	0.24	60.692		
200.0	200.0	200.0	200.0	0.3	0.3	-88.69	0.3	-14.8	14.8	14.2	0.59	24.991 CC		
227.8	227.8	227.8	227.8	0.3	0.3	-160.13	0.3	-14.8	14.9	14.2	0.69	21.520		
300.0	300.0	300.0	300.0	0.5	0.5	-160.37	0.3	-14.8	15.0	14.1	0.94	15.953 ES		
400.0	400.0	400.1	400.1	0.6	0.6	-161.94	0.5	-14.6	16.5	15.2	1.29	12.783		
500.0	499.9	500.3	500.3	0.8	0.8	-162.12	1.5	-13.2	18.4	16.8	1.64	11.212		
600.0	599.8	600.6	600.5	1.0	1.0	-160.91	3.6	-10.4	20.6	18.6	2.00	10.301		
700.0	699.5	700.8	700.6	1.2	1.2	-158.75	6.7	-6.2	23.0	20.6	2.36	9.751		
800.0	799.2	801.1	800.7	1.4	1.4	-155.97	10.9	-0.5	25.7	23.0	2.73	9.419		
900.0	898.6	901.3	900.4	1.7	1.6	-153.09	15.9	6.4	28.9	25.8	3.12	9.274		
1,000.0	997.9	1,001.1	999.9	2.0	1.8	-151.90	21.2	13.5	33.5	30.0	3.51	9.542		
1,100.0	1,096.9	1,101.0	1,099.3	2.2	2.0	-152.22	26.4	20.6	39.7	35.7	3.91	10.152		
1,200.0	1,195.7	1,200.7	1,198.7	2.5	2.3	-153.42	31.6	27.7	47.4	43.1	4.30	11.023		
1,300.0	1,294.2	1,300.2	1,297.8	2.9	2.5	-155.00	36.8	34.7	56.5	51.9	4.68	12.082		
1,400.0	1,392.6	1,399.8	1,397.0	3.2	2.7	-156.28	42.0	41.8	66.1	61.0	5.07	13.047		
1,500.0	1,491.0	1,499.3	1,496.1	3.6	2.9	-157.23	47.2	48.9	75.7	70.2	5.45	13.879		
1,600.0	1,589.5	1,598.8	1,595.3	3.9	3.2	-157.98	52.4	56.0	85.2	79.4	5.84	14.603		
1,700.0	1,687.9	1,698.4	1,694.4	4.2	3.4	-158.57	57.6	63.0	94.8	88.6	6.22	15.238		
1,800.0	1,786.3	1,797.9	1,793.6	4.6	3.6	-159.05	62.8	70.1	104.4	97.8	6.61	15.799		
1,900.0	1,884.8	1,897.4	1,892.7	4.9	3.9	-159.45	68.0	77.2	114.1	107.1	7.00	16.299		
2,000.0	1,983.2	1,997.0	1,991.8	5.3	4.1	-159.79	73.2	84.3	123.7	116.3	7.38	16.747		
2,100.0	2,081.7	2,096.5	2,091.0	5.6	4.3	-160.08	78.4	91.4	133.3	125.5	7.77	17.150		
2,200.0	2,180.1	2,196.0	2,190.1	6.0	4.5	-160.33	83.6	98.4	142.9	134.8	8.16	17.515		
2,300.0	2,278.5	2,295.6	2,289.3	6.3	4.8	-160.55	88.8	105.5	152.5	144.0	8.55	17.847		
2,400.0	2,377.0	2,395.1	2,388.4	6.7	5.0	-160.75	94.0	112.6	162.2	153.2	8.93	18.150		
2,500.0	2,475.4	2,494.6	2,487.6	7.0	5.2	-160.92	99.3	119.7	171.8	162.5	9.32	18.428		
2,600.0	2,573.9	2,594.2	2,586.7	7.4	5.5	-161.07	104.5	126.7	181.4	171.7	9.71	18.684		
2,700.0	2,672.3	2,693.7	2,685.9	7.7	5.7	-161.21	109.7	133.8	191.0	181.0	10.10	18.920		
2,800.0	2,770.7	2,793.2	2,785.0	8.1	5.9	-161.34	114.9	140.9	200.7	190.2	10.49	19.138		
2,900.0	2,869.2	2,892.8	2,884.2	8.5	6.2	-161.45	120.1	148.0	210.3	199.4	10.87	19.341		
3,000.0	2,967.6	2,992.3	2,983.3	8.8	6.4	-161.55	125.3	155.0	219.9	208.7	11.26	19.530		
3,100.0	3,066.0	3,091.8	3,082.5	9.2	6.6	-161.65	130.5	162.1	229.6	217.9	11.65	19.707		
3,200.0	3,164.5	3,191.4	3,181.6	9.5	6.9	-161.73	135.7	169.2	239.2	227.2	12.04	19.872		
3,300.0	3,262.9	3,290.9	3,280.7	9.9	7.1	-161.82	140.9	176.3	248.8	236.4	12.43	20.027		
3,400.0	3,361.4	3,390.4	3,379.9	10.2	7.3	-161.89	146.1	183.3	258.5	245.7	12.81	20.172		
3,500.0	3,459.8	3,490.0	3,479.0	10.6	7.5	-161.96	151.3	190.4	268.1	254.9	13.20	20.309		
3,600.0	3,558.2	3,589.5	3,578.2	10.9	7.8	-162.02	156.5	197.5	277.8	264.2	13.59	20.438		
3,700.0	3,656.7	3,689.0	3,677.3	11.3	8.0	-162.08	161.7	204.6	287.4	273.4	13.98	20.560		
3,800.0	3,755.1	3,788.6	3,776.5	11.7	8.2	-162.14	166.9	211.7	297.0	282.7	14.37	20.675		
3,900.0	3,853.6	3,888.1	3,875.6	12.0	8.5	-162.19	172.1	218.7	306.7	291.9	14.75	20.784		
4,000.0	3,952.0	3,987.6	3,974.8	12.4	8.7	-162.24	177.3	225.8	316.3	301.2	15.14	20.888		
4,100.0	4,050.4	4,087.2	4,073.9	12.7	8.9	-162.29	182.5	232.9	325.9	310.4	15.53	20.986		
4,200.0	4,148.9	4,186.7	4,173.1	13.1	9.2	-162.33	187.7	240.0	335.6	319.7	15.92	21.080		
4,300.0	4,247.3	4,286.2	4,272.2	13.4	9.4	-162.37	192.9	247.0	345.2	328.9	16.31	21.169		
4,400.0	4,345.8	4,385.8	4,371.3	13.8	9.6	-162.41	198.1	254.1	354.9	338.2	16.70	21.254		
4,500.0	4,444.2	4,485.3	4,470.5	14.1	9.9	-162.45	203.3	261.2	364.5	347.4	17.08	21.335		
4,600.0	4,542.6	4,584.8	4,569.6	14.5	10.1	-162.48	208.6	268.3	374.1	356.7	17.47	21.412		
4,700.0	4,641.1	4,684.4	4,668.8	14.9	10.3	-162.52	213.8	275.3	383.8	365.9	17.86	21.486		
4,800.0	4,739.5	4,783.9	4,767.9	15.2	10.6	-162.55	219.0	282.4	393.4	375.2	18.25	21.557		
4,900.0	4,837.9	4,883.5	4,867.1	15.6	10.8	-162.58	224.2	289.5	403.0	384.4	18.64	21.625		
5,000.0	4,936.4	4,983.0	4,966.2	15.9	11.0	-162.61	229.4	296.6	412.7	393.7	19.03	21.690		

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 Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2J-32H-C264 - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)				Between Ellipses (ft)	
5,100.0	5,034.9	5,082.5	5,065.4	16.3	11.3	-162.64	234.6	303.6	422.2	402.7	19.42	21.740		
5,200.0	5,133.6	5,182.2	5,164.7	16.6	11.5	-162.63	239.8	310.7	430.2	410.4	19.82	21.708		
5,300.0	5,232.5	5,282.0	5,264.1	16.9	11.7	-162.54	245.0	317.8	436.7	416.4	20.22	21.593		
5,400.0	5,331.8	5,381.9	5,363.6	17.2	11.9	-162.38	250.2	324.9	441.4	420.8	20.63	21.397		
5,500.0	5,431.2	5,481.8	5,463.1	17.4	12.2	-162.15	255.5	332.0	444.5	423.5	21.04	21.126		
5,600.0	5,530.8	5,577.7	5,558.6	17.6	12.4	-161.90	260.3	338.6	446.3	424.8	21.44	20.817		
5,700.0	5,630.5	5,671.7	5,652.4	17.8	12.6	-161.69	264.1	343.8	447.7	425.9	21.81	20.525		
5,800.0	5,730.3	5,765.8	5,746.4	18.0	12.8	-161.53	267.0	347.7	448.7	426.6	22.16	20.248		
5,900.0	5,830.3	5,859.8	5,840.3	18.1	12.9	-161.43	269.0	350.5	449.4	427.0	22.49	19.984		
6,000.0	5,930.2	5,953.9	5,934.4	18.2	13.1	-161.37	270.1	352.0	449.8	427.0	22.80	19.731		
6,100.0	6,030.2	6,049.7	6,030.2	18.3	13.2	-89.96	270.3	352.3	449.9	426.8	23.10	19.478		
6,200.0	6,130.2	6,149.7	6,130.2	18.4	13.3	-89.96	270.3	352.3	449.9	426.5	23.42	19.213		
6,300.0	6,230.2	6,249.7	6,230.2	18.5	13.5	-89.96	270.3	352.3	449.9	426.2	23.74	18.953		
6,400.0	6,330.2	6,349.7	6,330.2	18.6	13.6	-89.96	270.3	352.3	449.9	425.9	24.06	18.701		
6,500.0	6,430.2	6,449.7	6,430.2	18.7	13.7	-89.96	270.3	352.3	449.9	425.5	24.38	18.454		
6,561.0	6,491.2	6,510.7	6,491.2	18.8	13.8	-89.99	270.1	352.3	449.9	425.4	24.57	18.315		
6,600.0	6,530.2	6,549.6	6,530.0	18.8	13.9	-90.31	267.6	352.3	449.9	425.3	24.62	18.273		
6,700.0	6,630.2	6,646.2	6,624.9	18.9	13.9	87.52	250.1	352.3	450.4	425.9	24.52	18.368		
6,800.0	6,729.2	6,739.0	6,712.0	19.0	13.8	84.86	218.6	352.3	451.8	427.5	24.27	18.616		
6,900.0	6,824.4	6,828.9	6,790.6	19.0	13.8	82.40	174.9	352.3	454.1	430.0	24.07	18.861		
7,000.0	6,912.9	6,916.6	6,859.7	18.9	13.7	80.17	121.1	352.3	456.8	432.8	24.02	19.019		
7,100.0	6,992.0	7,000.0	6,917.1	18.9	13.8	78.27	60.7	352.3	459.8	435.7	24.14	19.050		
7,200.0	7,059.3	7,086.5	6,966.7	18.9	13.9	76.62	-10.1	352.3	462.6	438.2	24.45	18.923		
7,300.0	7,112.8	7,169.6	7,003.8	19.0	14.1	75.37	-84.4	352.3	465.1	440.1	24.97	18.626		
7,400.0	7,150.8	7,250.0	7,029.1	19.3	14.5	74.50	-160.6	352.3	467.0	441.3	25.65	18.205		
7,500.0	7,172.3	7,333.6	7,043.9	19.7	15.0	74.00	-242.8	352.3	468.1	441.5	26.55	17.628		
7,600.0	7,177.0	7,420.1	7,047.0	20.3	15.7	73.88	-329.1	352.3	468.3	440.5	27.78	16.856		
7,700.0	7,177.0	7,520.1	7,047.0	21.0	16.6	73.88	-429.1	352.3	468.3	438.6	29.68	15.779		
7,800.0	7,177.0	7,620.1	7,047.0	21.8	17.6	73.88	-529.1	352.3	468.3	436.5	31.82	14.717		
7,900.0	7,177.0	7,720.1	7,047.0	22.7	18.8	73.88	-629.1	352.3	468.3	434.2	34.16	13.708		
8,000.0	7,177.0	7,820.1	7,047.0	23.7	20.0	73.88	-729.1	352.3	468.3	431.7	36.67	12.773		
8,100.0	7,177.0	7,920.1	7,047.0	24.8	21.3	73.88	-829.1	352.3	468.3	429.0	39.30	11.917		
8,200.0	7,177.0	8,020.1	7,047.0	26.0	22.6	73.88	-929.1	352.3	468.3	426.3	42.04	11.141		
8,300.0	7,177.0	8,120.1	7,047.0	27.3	24.1	73.88	-1,029.1	352.3	468.3	423.5	44.86	10.439		
8,400.0	7,177.0	8,220.1	7,047.0	28.6	25.5	73.88	-1,129.1	352.3	468.3	420.6	47.76	9.806		
8,500.0	7,177.0	8,320.1	7,047.0	29.9	27.0	73.88	-1,229.1	352.3	468.3	417.6	50.71	9.235		
8,600.0	7,177.0	8,420.1	7,047.0	31.3	28.5	73.88	-1,329.1	352.3	468.3	414.6	53.72	8.718		
8,700.0	7,177.0	8,520.1	7,047.0	32.7	30.1	73.88	-1,429.1	352.3	468.3	411.6	56.76	8.251		
8,800.0	7,177.0	8,620.1	7,047.0	34.1	31.6	73.88	-1,529.1	352.3	468.3	408.5	59.84	7.826		
8,900.0	7,177.0	8,720.1	7,047.0	35.6	33.2	73.88	-1,629.1	352.3	468.3	405.4	62.95	7.439		
9,000.0	7,177.0	8,820.1	7,047.0	37.1	34.8	73.88	-1,729.1	352.3	468.3	402.2	66.09	7.086		
9,100.0	7,177.0	8,920.1	7,047.0	38.6	36.5	73.88	-1,829.1	352.3	468.3	399.1	69.25	6.763		
9,200.0	7,177.0	9,020.1	7,047.0	40.2	38.1	73.88	-1,929.1	352.3	468.3	395.9	72.42	6.466		
9,300.0	7,177.0	9,120.1	7,047.0	41.7	39.7	73.88	-2,029.1	352.3	468.3	392.7	75.62	6.193		
9,400.0	7,177.0	9,220.1	7,047.0	43.3	41.4	73.88	-2,129.1	352.3	468.3	389.5	78.83	5.941		
9,500.0	7,177.0	9,320.1	7,047.0	44.9	43.0	73.88	-2,229.1	352.3	468.3	386.3	82.05	5.708		
9,600.0	7,177.0	9,420.1	7,047.0	46.5	44.7	73.88	-2,329.1	352.3	468.3	383.0	85.28	5.491		
9,700.0	7,177.0	9,520.1	7,047.0	48.1	46.4	73.88	-2,429.1	352.3	468.3	379.8	88.53	5.290		
9,800.0	7,177.0	9,620.1	7,047.0	49.7	48.0	73.88	-2,529.1	352.3	468.3	376.5	91.78	5.103		
9,900.0	7,177.0	9,720.1	7,047.0	51.4	49.7	73.88	-2,629.1	352.3	468.3	373.3	95.04	4.927		
10,000.0	7,177.0	9,820.1	7,047.0	53.0	51.4	73.88	-2,729.1	352.3	468.3	370.0	98.31	4.764		
10,100.0	7,177.0	9,920.1	7,047.0	54.6	53.1	73.88	-2,829.1	352.3	468.3	366.7	101.59	4.610		

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 Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2J-32H-C264 - 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		
10,200.0	7,177.0	10,020.1	7,047.0	56.3	54.8	73.88	-2,929.1	352.3	468.3	363.4	104.87	4.466		
10,300.0	7,177.0	10,120.1	7,047.0	57.9	56.5	73.88	-3,029.1	352.3	468.3	360.2	108.16	4.330		
10,400.0	7,177.0	10,220.1	7,047.0	59.6	58.2	73.88	-3,129.1	352.3	468.3	356.9	111.45	4.202		
10,500.0	7,177.0	10,320.1	7,047.0	61.3	59.9	73.88	-3,229.1	352.3	468.3	353.6	114.75	4.081		
10,600.0	7,177.0	10,420.1	7,047.0	62.9	61.6	73.88	-3,329.1	352.3	468.3	350.3	118.05	3.967		
10,700.0	7,177.0	10,520.1	7,047.0	64.6	63.3	73.88	-3,429.1	352.3	468.3	347.0	121.35	3.859		
10,800.0	7,177.0	10,620.1	7,047.0	66.3	65.0	73.88	-3,529.1	352.3	468.3	343.6	124.66	3.757		
10,900.0	7,177.0	10,720.1	7,047.0	68.0	66.8	73.88	-3,629.1	352.3	468.3	340.3	127.97	3.659		
11,000.0	7,177.0	10,820.1	7,047.0	69.7	68.5	73.88	-3,729.1	352.3	468.3	337.0	131.29	3.567		
11,100.0	7,177.0	10,920.1	7,047.0	71.4	70.2	73.88	-3,829.1	352.3	468.3	333.7	134.61	3.479		
11,200.0	7,177.0	11,020.1	7,047.0	73.1	71.9	73.88	-3,929.1	352.3	468.3	330.4	137.93	3.395		
11,300.0	7,177.0	11,120.1	7,047.0	74.8	73.6	73.88	-4,029.1	352.3	468.3	327.1	141.25	3.315		
11,400.0	7,177.0	11,220.1	7,047.0	76.5	75.4	73.88	-4,129.1	352.3	468.3	323.7	144.58	3.239		
11,500.0	7,177.0	11,320.1	7,047.0	78.2	77.1	73.88	-4,229.1	352.3	468.3	320.4	147.90	3.166		
11,600.0	7,177.0	11,420.1	7,047.0	79.9	78.8	73.88	-4,329.1	352.3	468.3	317.1	151.23	3.097		
11,700.0	7,177.0	11,520.1	7,047.0	81.6	80.5	73.88	-4,429.1	352.3	468.3	313.7	154.56	3.030		
11,800.0	7,177.0	11,620.1	7,047.0	83.3	82.3	73.88	-4,529.1	352.3	468.3	310.4	157.90	2.966		
11,823.5	7,177.0	11,643.5	7,047.0	83.7	82.7	73.88	-4,552.6	352.3	468.3	309.6	158.68	2.951		
11,829.1	7,177.0	11,646.6	7,047.0	83.8	82.7	73.88	-4,555.7	352.3	468.3	309.5	158.82	2.949 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2K-32H-C264 - 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	0.0	0.0	0.0	0.0	-87.52	0.3	-7.6	7.6					
100.0	100.0	100.0	100.0	0.1	0.1	-87.52	0.3	-7.6	7.6	7.3	0.24	30.940		
200.0	200.0	200.0	200.0	0.3	0.3	-87.52	0.3	-7.6	7.6	7.0	0.59	12.740 CC		
227.9	227.9	227.9	227.9	0.3	0.3	-159.01	0.3	-7.6	7.6	6.9	0.69	10.989		
300.0	300.0	300.0	300.0	0.5	0.5	-159.50	0.3	-7.6	7.8	6.8	0.94	8.238 ES		
400.0	400.0	400.1	400.1	0.6	0.6	-160.95	0.7	-6.8	8.6	7.3	1.29	6.673		
500.0	499.9	500.3	500.2	0.8	0.8	-161.08	1.8	-4.4	9.5	7.9	1.64	5.814		
600.0	599.8	600.4	600.3	1.0	1.0	-160.23	3.6	-0.4	10.5	8.6	2.00	5.285		
700.0	699.5	700.6	700.3	1.2	1.2	-158.67	6.2	5.2	11.6	9.3	2.35	4.936		
800.0	799.2	800.8	800.1	1.4	1.4	-156.61	9.5	12.3	12.8	10.1	2.72	4.695		
900.0	898.6	901.0	899.9	1.7	1.7	-154.21	13.5	21.0	14.0	10.9	3.11	4.521		
1,000.0	997.9	1,001.2	999.4	2.0	1.9	-151.60	18.3	31.3	15.4	11.9	3.51	4.389		
1,100.0	1,096.9	1,101.2	1,098.7	2.2	2.2	-149.54	23.6	42.9	17.2	13.2	3.94	4.361		
1,200.0	1,195.7	1,201.2	1,197.8	2.5	2.4	-150.25	29.0	54.6	20.4	16.0	4.35	4.679		
1,300.0	1,294.2	1,301.1	1,296.8	2.9	2.7	-152.59	34.4	66.3	25.0	20.2	4.73	5.273		
1,400.0	1,392.6	1,400.9	1,395.9	3.2	3.0	-154.51	39.8	78.0	29.9	24.8	5.12	5.849		
1,500.0	1,491.0	1,500.8	1,494.9	3.6	3.2	-155.88	45.2	89.7	34.9	29.4	5.50	6.348		
1,600.0	1,589.5	1,600.7	1,594.0	3.9	3.5	-156.91	50.6	101.3	39.9	34.0	5.88	6.783		
1,700.0	1,687.9	1,700.6	1,693.0	4.2	3.8	-157.71	56.0	113.0	44.9	38.6	6.27	7.165		
1,800.0	1,786.3	1,800.4	1,792.0	4.6	4.1	-158.35	61.4	124.7	49.9	43.3	6.66	7.503		
1,900.0	1,884.8	1,900.3	1,891.1	4.9	4.4	-158.87	66.8	136.4	55.0	47.9	7.04	7.805		
2,000.0	1,983.2	2,000.2	1,990.1	5.3	4.6	-159.30	72.2	148.1	60.0	52.6	7.43	8.075		
2,100.0	2,081.7	2,100.0	2,089.2	5.6	4.9	-159.67	77.6	159.7	65.0	57.2	7.82	8.318		
2,200.0	2,180.1	2,199.9	2,188.2	6.0	5.2	-159.98	83.0	171.4	70.0	61.8	8.20	8.539		
2,300.0	2,278.5	2,299.8	2,287.2	6.3	5.5	-160.26	88.4	183.1	75.1	66.5	8.59	8.740		
2,400.0	2,377.0	2,399.7	2,386.3	6.7	5.8	-160.49	93.7	194.8	80.1	71.1	8.98	8.923		
2,500.0	2,475.4	2,499.5	2,485.3	7.0	6.1	-160.70	99.1	206.5	85.1	75.8	9.36	9.091		
2,600.0	2,573.9	2,599.4	2,584.4	7.4	6.3	-160.89	104.5	218.1	90.2	80.4	9.75	9.246		
2,700.0	2,672.3	2,699.3	2,683.4	7.7	6.6	-161.06	109.9	229.8	95.2	85.1	10.14	9.389		
2,800.0	2,770.7	2,799.2	2,782.4	8.1	6.9	-161.21	115.3	241.5	100.2	89.7	10.53	9.522		
2,900.0	2,869.2	2,899.0	2,881.5	8.5	7.2	-161.34	120.7	253.2	105.3	94.4	10.92	9.645		
3,000.0	2,967.6	2,998.9	2,980.5	8.8	7.5	-161.47	126.1	264.9	110.3	99.0	11.30	9.759		
3,100.0	3,066.0	3,098.8	3,079.6	9.2	7.8	-161.58	131.5	276.5	115.4	103.7	11.69	9.866		
3,200.0	3,164.5	3,198.6	3,178.6	9.5	8.0	-161.68	136.9	288.2	120.4	108.3	12.08	9.966		
3,300.0	3,262.9	3,298.5	3,277.6	9.9	8.3	-161.78	142.3	299.9	125.4	113.0	12.47	10.060		
3,400.0	3,361.4	3,398.4	3,376.7	10.2	8.6	-161.86	147.7	311.6	130.5	117.6	12.86	10.148		
3,500.0	3,459.8	3,498.3	3,475.7	10.6	8.9	-161.95	153.1	323.3	135.5	122.3	13.25	10.231		
3,600.0	3,558.2	3,598.1	3,574.8	10.9	9.2	-162.02	158.5	334.9	140.6	126.9	13.63	10.309		
3,700.0	3,656.7	3,698.0	3,673.8	11.3	9.5	-162.09	163.8	346.6	145.6	131.6	14.02	10.383		
3,800.0	3,755.1	3,797.9	3,772.9	11.7	9.7	-162.16	169.2	358.3	150.6	136.2	14.41	10.453		
3,900.0	3,853.6	3,897.8	3,871.9	12.0	10.0	-162.22	174.6	370.0	155.7	140.9	14.80	10.519		
4,000.0	3,952.0	3,997.6	3,970.9	12.4	10.3	-162.27	180.0	381.7	160.7	145.5	15.19	10.582		
4,100.0	4,050.4	4,097.5	4,070.0	12.7	10.6	-162.33	185.4	393.3	165.8	150.2	15.58	10.642		
4,200.0	4,148.9	4,197.4	4,169.0	13.1	10.9	-162.38	190.8	405.0	170.8	154.8	15.97	10.698		
4,300.0	4,247.3	4,297.2	4,268.1	13.4	11.2	-162.43	196.2	416.7	175.9	159.5	16.35	10.752		
4,400.0	4,345.8	4,397.1	4,367.1	13.8	11.4	-162.47	201.6	428.4	180.9	164.1	16.74	10.804		
4,500.0	4,444.2	4,497.0	4,466.1	14.1	11.7	-162.51	207.0	440.1	185.9	168.8	17.13	10.853		
4,600.0	4,542.6	4,596.9	4,565.2	14.5	12.0	-162.55	212.4	451.7	191.0	173.5	17.52	10.900		
4,700.0	4,641.1	4,696.7	4,664.2	14.9	12.3	-162.59	217.8	463.4	196.0	178.1	17.91	10.945		
4,800.0	4,739.5	4,796.6	4,763.3	15.2	12.6	-162.63	223.2	475.1	201.1	182.8	18.30	10.988		
4,900.0	4,837.9	4,896.5	4,862.3	15.6	12.9	-162.66	228.6	486.8	206.1	187.4	18.69	11.029		
5,000.0	4,936.4	4,996.4	4,961.3	15.9	13.2	-162.70	233.9	498.5	211.1	192.1	19.08	11.069		

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 Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2K-32H-C264 - 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	
5,100.0	5,034.9	5,096.2	5,060.4	16.3	13.4	-162.72	239.3	510.1	216.0	196.6	19.47	11.096		
5,200.0	5,133.6	5,196.2	5,159.5	16.6	13.7	-162.63	244.7	521.8	219.5	199.6	19.88	11.043		
5,300.0	5,232.5	5,296.2	5,258.6	16.9	14.0	-162.41	250.1	533.5	221.3	201.0	20.30	10.900		
5,400.0	5,331.8	5,392.8	5,354.6	17.2	14.3	-162.14	255.0	544.1	222.2	201.5	20.72	10.723		
5,500.0	5,431.2	5,489.4	5,450.7	17.4	14.5	-161.91	259.3	553.3	222.9	201.8	21.12	10.557		
5,600.0	5,530.8	5,586.0	5,546.9	17.6	14.7	-161.72	262.8	561.0	223.6	202.1	21.50	10.399		
5,700.0	5,630.5	5,682.5	5,643.2	17.8	14.9	-161.56	265.7	567.1	224.1	202.2	21.86	10.251		
5,800.0	5,730.3	5,779.1	5,739.6	18.0	15.1	-161.45	267.8	571.9	224.5	202.3	22.21	10.110		
5,900.0	5,830.3	5,875.7	5,836.1	18.1	15.2	-161.37	269.3	575.1	224.8	202.2	22.53	9.977		
6,000.0	5,930.2	5,972.2	5,932.6	18.2	15.3	-161.32	270.2	576.9	224.9	202.1	22.84	9.850		
6,100.0	6,030.2	6,069.8	6,030.2	18.3	15.5	-89.92	270.3	577.2	225.0	201.8	23.14	9.723		
6,200.0	6,130.2	6,169.8	6,130.2	18.4	15.6	-89.92	270.3	577.2	225.0	201.5	23.46	9.591		
6,300.0	6,230.2	6,269.8	6,230.2	18.5	15.7	-89.92	270.3	577.2	225.0	201.2	23.78	9.462		
6,400.0	6,330.2	6,369.8	6,330.2	18.6	15.8	-89.92	270.3	577.2	225.0	200.9	24.10	9.336		
6,463.9	6,394.1	6,433.7	6,394.1	18.7	15.9	-89.94	270.2	577.2	225.0	200.7	24.29	9.260		
6,500.0	6,430.2	6,469.7	6,430.1	18.7	15.9	-90.41	268.4	577.2	225.0	200.6	24.31	9.254		
6,600.0	6,530.2	6,566.8	6,525.7	18.8	15.9	-94.50	252.3	577.2	225.7	201.8	23.91	9.439		
6,700.0	6,630.2	6,656.3	6,610.3	18.9	15.9	78.21	223.3	577.2	230.5	207.1	23.37	9.862		
6,800.0	6,729.2	6,740.4	6,684.8	19.0	15.9	70.49	184.4	577.2	240.3	216.9	23.32	10.301		
6,900.0	6,824.4	6,821.3	6,750.3	19.0	15.8	63.85	137.2	577.2	252.9	229.2	23.73	10.659		
7,000.0	6,912.9	6,900.0	6,807.1	18.9	15.8	58.35	82.7	577.2	266.8	242.7	24.14	11.053		
7,100.0	6,992.0	6,975.9	6,854.2	18.9	15.9	54.00	23.4	577.2	280.5	256.2	24.30	11.543		
7,200.0	7,059.3	7,050.0	6,892.3	18.9	16.0	50.67	-40.2	577.2	292.8	268.8	24.01	12.195		
7,300.0	7,112.8	7,124.3	6,922.0	19.0	16.2	48.21	-108.3	577.2	302.9	279.4	23.48	12.900		
7,400.0	7,150.8	7,200.0	6,942.9	19.3	16.6	46.55	-180.9	577.2	310.2	287.4	22.88	13.561		
7,500.0	7,172.3	7,269.6	6,953.5	19.7	17.0	45.70	-249.7	577.2	314.4	292.0	22.40	14.037		
7,600.0	7,177.0	7,349.1	6,956.0	20.3	17.5	45.51	-329.1	577.2	315.3	292.7	22.63	13.935		
7,700.0	7,177.0	7,449.1	6,956.0	21.0	18.3	45.51	-429.1	577.2	315.3	291.3	24.10	13.088		
7,800.0	7,177.0	7,549.1	6,956.0	21.8	19.2	45.51	-529.1	577.2	315.3	289.6	25.72	12.261		
7,900.0	7,177.0	7,649.1	6,956.0	22.7	20.3	45.51	-629.1	577.2	315.3	287.9	27.48	11.476		
8,000.0	7,177.0	7,749.1	6,956.0	23.7	21.4	45.51	-729.1	577.2	315.3	286.0	29.35	10.745		
8,100.0	7,177.0	7,849.1	6,956.0	24.8	22.6	45.51	-829.1	577.2	315.3	284.0	31.31	10.072		
8,200.0	7,177.0	7,949.1	6,956.0	26.0	23.9	45.51	-929.1	577.2	315.3	282.0	33.34	9.457		
8,300.0	7,177.0	8,049.1	6,956.0	27.3	25.3	45.51	-1,029.1	577.2	315.3	279.9	35.44	8.898		
8,400.0	7,177.0	8,149.1	6,956.0	28.6	26.7	45.51	-1,129.1	577.2	315.3	277.8	37.59	8.389		
8,500.0	7,177.0	8,249.1	6,956.0	29.9	28.1	45.51	-1,229.1	577.2	315.3	275.6	39.78	7.927		
8,600.0	7,177.0	8,349.1	6,956.0	31.3	29.6	45.51	-1,329.1	577.2	315.3	273.3	42.01	7.506		
8,700.0	7,177.0	8,449.1	6,956.0	32.7	31.0	45.51	-1,429.1	577.2	315.3	271.1	44.27	7.123		
8,800.0	7,177.0	8,549.1	6,956.0	34.1	32.6	45.51	-1,529.1	577.2	315.3	268.8	46.56	6.773		
8,900.0	7,177.0	8,649.1	6,956.0	35.6	34.1	45.51	-1,629.1	577.2	315.3	266.5	48.87	6.453		
9,000.0	7,177.0	8,749.1	6,956.0	37.1	35.7	45.51	-1,729.1	577.2	315.3	264.2	51.20	6.159		
9,100.0	7,177.0	8,849.1	6,956.0	38.6	37.3	45.51	-1,829.1	577.2	315.3	261.8	53.54	5.890		
9,200.0	7,177.0	8,949.1	6,956.0	40.2	38.9	45.51	-1,929.1	577.2	315.3	259.4	55.90	5.641		
9,300.0	7,177.0	9,049.1	6,956.0	41.7	40.5	45.51	-2,029.1	577.2	315.3	257.1	58.28	5.411		
9,400.0	7,177.0	9,149.1	6,956.0	43.3	42.1	45.51	-2,129.1	577.2	315.3	254.7	60.66	5.198		
9,500.0	7,177.0	9,249.1	6,956.0	44.9	43.7	45.51	-2,229.1	577.2	315.3	252.3	63.06	5.001		
9,600.0	7,177.0	9,349.1	6,956.0	46.5	45.3	45.51	-2,329.1	577.2	315.3	249.9	65.46	4.817		
9,700.0	7,177.0	9,449.1	6,956.0	48.1	47.0	45.51	-2,429.1	577.2	315.3	247.5	67.88	4.646		
9,800.0	7,177.0	9,549.1	6,956.0	49.7	48.7	45.51	-2,529.1	577.2	315.3	245.1	70.30	4.486		
9,900.0	7,177.0	9,649.1	6,956.0	51.4	50.3	45.51	-2,629.1	577.2	315.3	242.6	72.72	4.336		
10,000.0	7,177.0	9,749.1	6,956.0	53.0	52.0	45.51	-2,729.1	577.2	315.3	240.2	75.16	4.196		
10,100.0	7,177.0	9,849.1	6,956.0	54.6	53.7	45.51	-2,829.1	577.2	315.3	237.8	77.60	4.064		

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 Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Offset Design S32-T2N-R64W (Newman) - Newman 2K-32H-C264 - 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		
10,200.0	7,177.0	9,949.1	6,956.0	56.3	55.3	45.51	-2,929.1	577.2	315.3	235.3	80.04	3.940		
10,300.0	7,177.0	10,049.1	6,956.0	57.9	57.0	45.51	-3,029.1	577.2	315.3	232.9	82.49	3.823		
10,400.0	7,177.0	10,149.1	6,956.0	59.6	58.7	45.51	-3,129.1	577.2	315.3	230.4	84.94	3.713		
10,500.0	7,177.0	10,249.1	6,956.0	61.3	60.4	45.51	-3,229.1	577.2	315.3	228.0	87.39	3.608		
10,600.0	7,177.0	10,349.1	6,956.0	62.9	62.1	45.51	-3,329.1	577.2	315.3	225.5	89.85	3.510		
10,700.0	7,177.0	10,449.1	6,956.0	64.6	63.8	45.51	-3,429.1	577.2	315.3	223.0	92.31	3.416		
10,800.0	7,177.0	10,549.1	6,956.0	66.3	65.5	45.51	-3,529.1	577.2	315.3	220.6	94.78	3.327		
10,900.0	7,177.0	10,649.1	6,956.0	68.0	67.2	45.51	-3,629.1	577.2	315.3	218.1	97.25	3.243		
11,000.0	7,177.0	10,749.1	6,956.0	69.7	68.9	45.51	-3,729.1	577.2	315.3	215.6	99.72	3.162		
11,100.0	7,177.0	10,849.1	6,956.0	71.4	70.6	45.51	-3,829.1	577.2	315.3	213.2	102.19	3.086		
11,200.0	7,177.0	10,949.1	6,956.0	73.1	72.3	45.51	-3,929.1	577.2	315.3	210.7	104.66	3.013		
11,300.0	7,177.0	11,049.1	6,956.0	74.8	74.0	45.51	-4,029.1	577.2	315.3	208.2	107.14	2.943		
11,400.0	7,177.0	11,149.1	6,956.0	76.5	75.7	45.51	-4,129.1	577.2	315.3	205.7	109.62	2.877		
11,500.0	7,177.0	11,249.1	6,956.0	78.2	77.5	45.51	-4,229.1	577.2	315.3	203.2	112.10	2.813		
11,600.0	7,177.0	11,349.1	6,956.0	79.9	79.2	45.51	-4,329.1	577.2	315.3	200.8	114.58	2.752		
11,700.0	7,177.0	11,449.1	6,956.0	81.6	80.9	45.51	-4,429.1	577.2	315.3	198.3	117.06	2.694		
11,800.0	7,177.0	11,549.1	6,956.0	83.3	82.6	45.51	-4,529.1	577.2	315.3	195.8	119.55	2.638		
11,823.9	7,177.0	11,573.0	6,956.0	83.7	83.0	45.51	-4,553.0	577.2	315.3	195.2	120.14	2.625		
11,829.1	7,177.0	11,576.8	6,956.0	83.8	83.1	45.51	-4,556.7	577.2	315.4	195.1	120.25	2.622 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Newman 2L-32H-C264
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4985.0ft (Original Well Elev)
Reference Site:	S32-T2N-R64W (Newman)	MD Reference:	WELL @ 4985.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Newman 2L-32H-C264	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 #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4985.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Newman 2L-32H-C264

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.60°

