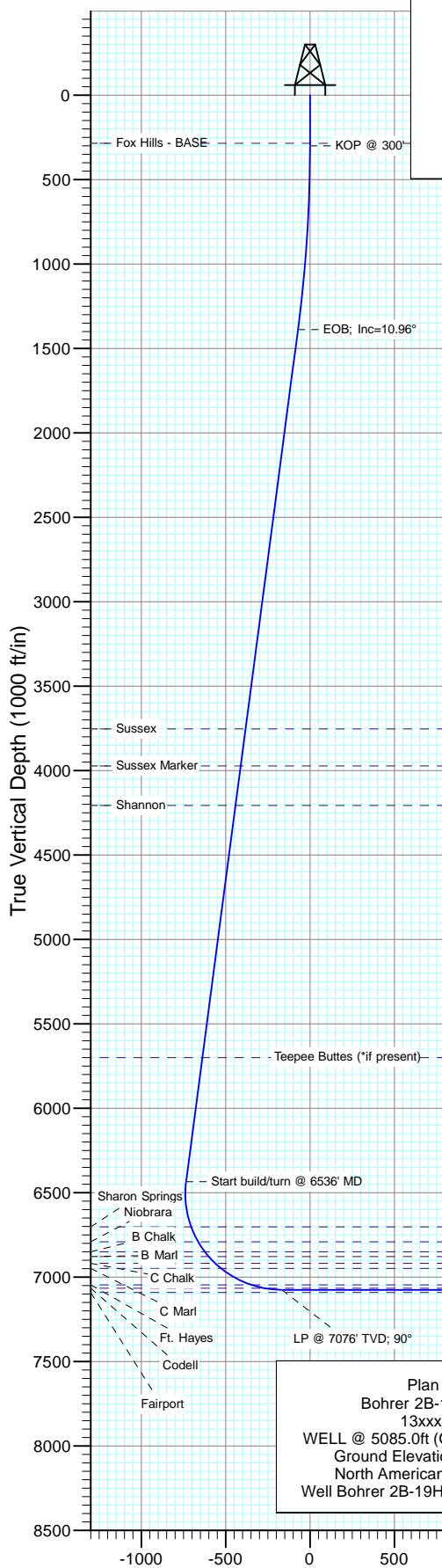


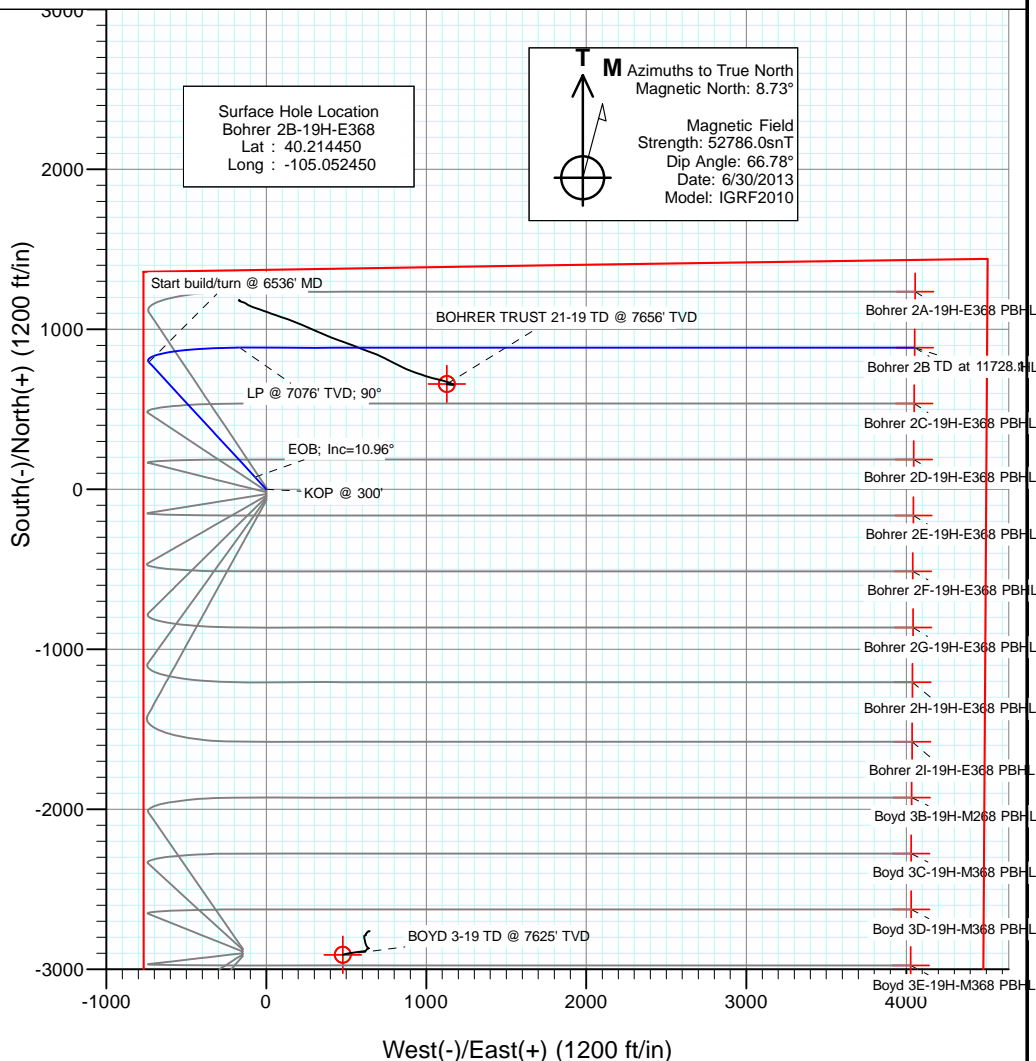


Project: DJ Wattenberg
Site: S19-T3N-R68W (Bohrer)
Well: Bohrer 2B-19H-E368
Wellbore: Hz
Design: Plan #1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	1395.9	10.96	317.26	1389.3	76.7	-70.9	1.00	317.26	-70.9	
4	6536.0	10.96	317.26	6435.6	794.5	-734.1	0.00	0.00	-734.1	
5	7510.1	90.00	90.00	7076.0	885.6	-165.9	10.00	132.21	-165.9	
6	11728.1	90.00	90.00	7076.0	885.6	4052.1	0.00	0.00	4052.1	Bohrer 2B-19H-E368 PBHL



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Bohrer 2B-19H-E368 PBHL	885.6	4052.1	1322190.40	3129041.77	40.216880	-105.037940

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
285.0	285.0	Fox Hills - BASE
3754.0	3804.6	Sussex
3973.0	4027.7	Sussex Marker
4207.0	4266.0	Shannon
5700.0	5786.7	Teepee Buttes (*if present)
6703.0	6810.4	Sharon Springs
6791.0	6908.5	Niobrara
6850.0	6979.9	B Chalk
6879.0	7017.6	B Marl
6919.0	7073.3	C Chalk
6949.0	7119.2	C Marl
7046.0	7322.9	Ft. Hayes
7066.0	7402.4	Codell

Plan #1
Bohrer 2B-19H-E368
13xxx; LR
WELL @ 5085.0ft (Original Well Elev)
Ground Elevation @ 5060.0
North American Datum 1983
Well Bohrer 2B-19H-E368, True North

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site:	S19-T3N-R68W (Bohrer)	North Reference:	True
Well:	Bohrer 2B-19H-E368	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		S19-T3N-R68W (Bohrer)			
Site Position:		Northing:	1,318,413.14 ft	Latitude:	40.206570
From:	Lat/Long	Easting:	3,124,860.64 ft	Longitude:	-105.052980
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.29 °

Well	Bohrer 2B-19H-E368					
Well Position	+N/-S	0.0 ft	Northing:	1,321,284.40 ft	Latitude:	40.214450
	+E/-W	0.0 ft	Easting:	3,124,994.18 ft	Longitude:	-105.052450
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,060.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/30/2013	8.73	66.78	52,786

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	90.00

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,395.9	10.96	317.26	1,389.3	76.7	-70.9	1.00	1.00	0.00	317.26	
6,536.0	10.96	317.26	6,435.6	794.5	-734.1	0.00	0.00	0.00	0.00	
7,510.1	90.00	90.00	7,076.0	885.6	-165.9	10.00	8.11	13.63	132.21	
11,728.1	90.00	90.00	7,076.0	885.6	4,052.1	0.00	0.00	0.00	0.00	Bohrer 2B-19H-E368

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site:	S19-T3N-R68W (Bohrer)	North Reference:	True
Well:	Bohrer 2B-19H-E368	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	
285.0	0.00	0.00	285.0	0.0	0.0	0.0	0.00	0.00	Fox Hills - BASE
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
400.0	1.00	317.26	400.0	0.6	-0.6	-0.6	1.00	1.00	
500.0	2.00	317.26	500.0	2.6	-2.4	-2.4	1.00	1.00	
600.0	3.00	317.26	599.9	5.8	-5.3	-5.3	1.00	1.00	
700.0	4.00	317.26	699.7	10.3	-9.5	-9.5	1.00	1.00	
800.0	5.00	317.26	799.4	16.0	-14.8	-14.8	1.00	1.00	
900.0	6.00	317.26	898.9	23.1	-21.3	-21.3	1.00	1.00	
1,000.0	7.00	317.26	998.3	31.4	-29.0	-29.0	1.00	1.00	
1,100.0	8.00	317.26	1,097.4	41.0	-37.8	-37.8	1.00	1.00	
1,200.0	9.00	317.26	1,196.3	51.8	-47.9	-47.9	1.00	1.00	
1,300.0	10.00	317.26	1,294.9	63.9	-59.1	-59.1	1.00	1.00	
1,395.9	10.96	317.26	1,389.3	76.7	-70.9	-70.9	1.00	1.00	EOB; Inc=10.96°
1,400.0	10.96	317.26	1,393.3	77.3	-71.4	-71.4	0.00	0.00	
1,500.0	10.96	317.26	1,491.4	91.3	-84.3	-84.3	0.00	0.00	
1,600.0	10.96	317.26	1,589.6	105.2	-97.2	-97.2	0.00	0.00	
1,700.0	10.96	317.26	1,687.8	119.2	-110.1	-110.1	0.00	0.00	
1,800.0	10.96	317.26	1,786.0	133.2	-123.0	-123.0	0.00	0.00	
1,900.0	10.96	317.26	1,884.1	147.1	-135.9	-135.9	0.00	0.00	
2,000.0	10.96	317.26	1,982.3	161.1	-148.8	-148.8	0.00	0.00	
2,100.0	10.96	317.26	2,080.5	175.1	-161.7	-161.7	0.00	0.00	
2,200.0	10.96	317.26	2,178.7	189.0	-174.7	-174.7	0.00	0.00	
2,300.0	10.96	317.26	2,276.8	203.0	-187.6	-187.6	0.00	0.00	
2,400.0	10.96	317.26	2,375.0	217.0	-200.5	-200.5	0.00	0.00	
2,500.0	10.96	317.26	2,473.2	230.9	-213.4	-213.4	0.00	0.00	
2,600.0	10.96	317.26	2,571.4	244.9	-226.3	-226.3	0.00	0.00	
2,700.0	10.96	317.26	2,669.5	258.8	-239.2	-239.2	0.00	0.00	
2,800.0	10.96	317.26	2,767.7	272.8	-252.1	-252.1	0.00	0.00	
2,900.0	10.96	317.26	2,865.9	286.8	-265.0	-265.0	0.00	0.00	
3,000.0	10.96	317.26	2,964.1	300.7	-277.9	-277.9	0.00	0.00	
3,100.0	10.96	317.26	3,062.3	314.7	-290.8	-290.8	0.00	0.00	
3,200.0	10.96	317.26	3,160.4	328.7	-303.7	-303.7	0.00	0.00	
3,300.0	10.96	317.26	3,258.6	342.6	-316.6	-316.6	0.00	0.00	
3,400.0	10.96	317.26	3,356.8	356.6	-329.5	-329.5	0.00	0.00	
3,500.0	10.96	317.26	3,455.0	370.5	-342.4	-342.4	0.00	0.00	
3,600.0	10.96	317.26	3,553.1	384.5	-355.3	-355.3	0.00	0.00	
3,700.0	10.96	317.26	3,651.3	398.5	-368.2	-368.2	0.00	0.00	
3,800.0	10.96	317.26	3,749.5	412.4	-381.1	-381.1	0.00	0.00	
3,804.6	10.96	317.26	3,754.0	413.1	-381.7	-381.7	0.00	0.00	Sussex
3,900.0	10.96	317.26	3,847.7	426.4	-394.0	-394.0	0.00	0.00	
4,000.0	10.96	317.26	3,945.8	440.4	-406.9	-406.9	0.00	0.00	
4,027.7	10.96	317.26	3,973.0	444.2	-410.4	-410.4	0.00	0.00	Sussex Marker
4,100.0	10.96	317.26	4,044.0	454.3	-419.8	-419.8	0.00	0.00	
4,200.0	10.96	317.26	4,142.2	468.3	-432.7	-432.7	0.00	0.00	
4,266.0	10.96	317.26	4,207.0	477.5	-441.2	-441.2	0.00	0.00	Shannon
4,300.0	10.96	317.26	4,240.4	482.3	-445.6	-445.6	0.00	0.00	
4,400.0	10.96	317.26	4,338.5	496.2	-458.5	-458.5	0.00	0.00	
4,500.0	10.96	317.26	4,436.7	510.2	-471.4	-471.4	0.00	0.00	
4,600.0	10.96	317.26	4,534.9	524.1	-484.3	-484.3	0.00	0.00	

Cathedral Energy Services

Planning Report

Database: USA EDM 5000 Multi Users DB
Company: EnCana Oil & Gas (USA) Inc
Project: DJ Wattenberg
Site: S19-T3N-R68W (Bohrer)
Well: Bohrer 2B-19H-E368
Wellbore: Hz
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Bohrer 2B-19H-E368
 WELL @ 5085.0ft (Original Well Elev)
 WELL @ 5085.0ft (Original Well Elev)
 True
 Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,700.0	10.96	317.26	4,633.1	538.1	-497.2	-497.2	0.00	0.00	
4,800.0	10.96	317.26	4,731.2	552.1	-510.1	-510.1	0.00	0.00	
4,900.0	10.96	317.26	4,829.4	566.0	-523.0	-523.0	0.00	0.00	
5,000.0	10.96	317.26	4,927.6	580.0	-535.9	-535.9	0.00	0.00	
5,100.0	10.96	317.26	5,025.8	594.0	-548.8	-548.8	0.00	0.00	
5,200.0	10.96	317.26	5,124.0	607.9	-561.7	-561.7	0.00	0.00	
5,300.0	10.96	317.26	5,222.1	621.9	-574.6	-574.6	0.00	0.00	
5,400.0	10.96	317.26	5,320.3	635.9	-587.5	-587.5	0.00	0.00	
5,500.0	10.96	317.26	5,418.5	649.8	-600.4	-600.4	0.00	0.00	
5,600.0	10.96	317.26	5,516.7	663.8	-613.3	-613.3	0.00	0.00	
5,700.0	10.96	317.26	5,614.8	677.7	-626.2	-626.2	0.00	0.00	
5,786.7	10.96	317.26	5,700.0	689.9	-637.4	-637.4	0.00	0.00	Teepee Buttes (*if present)
5,800.0	10.96	317.26	5,713.0	691.7	-639.1	-639.1	0.00	0.00	
5,900.0	10.96	317.26	5,811.2	705.7	-652.0	-652.0	0.00	0.00	
6,000.0	10.96	317.26	5,909.4	719.6	-664.9	-664.9	0.00	0.00	
6,100.0	10.96	317.26	6,007.5	733.6	-677.8	-677.8	0.00	0.00	
6,200.0	10.96	317.26	6,105.7	747.6	-690.7	-690.7	0.00	0.00	
6,300.0	10.96	317.26	6,203.9	761.5	-703.6	-703.6	0.00	0.00	
6,400.0	10.96	317.26	6,302.1	775.5	-716.5	-716.5	0.00	0.00	
6,500.0	10.96	317.26	6,400.2	789.4	-729.4	-729.4	0.00	0.00	
6,536.0	10.96	317.26	6,435.6	794.5	-734.1	-734.1	0.00	0.00	Start build/turn @ 6536' MD
6,600.0	8.16	352.86	6,498.7	803.5	-738.8	-738.8	10.00	-4.38	
6,700.0	12.07	48.33	6,597.4	817.5	-731.8	-731.8	10.00	3.92	
6,800.0	20.58	67.75	6,693.3	831.1	-707.7	-707.7	10.00	8.51	
6,810.4	21.54	68.88	6,703.0	832.5	-704.2	-704.2	10.00	9.20	Sharon Springs
6,900.0	30.00	75.74	6,783.7	844.0	-667.1	-667.1	10.00	9.44	
6,908.5	30.82	76.21	6,791.0	845.0	-662.9	-662.9	10.00	9.61	Niobrara
6,979.9	37.74	79.41	6,850.0	853.4	-623.6	-623.6	10.00	9.68	B Chalk
7,000.0	39.69	80.13	6,865.7	855.6	-611.2	-611.2	10.00	9.74	
7,017.6	41.40	80.72	6,879.0	857.5	-600.0	-600.0	10.00	9.76	B Marl
7,073.3	46.86	82.34	6,919.0	863.2	-561.6	-561.6	10.00	9.79	C Chalk
7,100.0	49.48	83.02	6,936.8	865.8	-541.9	-541.9	10.00	9.82	
7,119.2	51.37	83.47	6,949.0	867.5	-527.2	-527.2	10.00	9.83	C Marl
7,200.0	59.33	85.16	6,994.9	874.0	-461.1	-461.1	10.00	9.85	
7,300.0	69.21	86.90	7,038.3	880.2	-371.3	-371.3	10.00	9.88	
7,322.9	71.48	87.27	7,046.0	881.3	-349.8	-349.8	10.00	9.89	Ft. Hayes
7,400.0	79.10	88.43	7,065.6	884.1	-275.3	-275.3	10.00	9.89	
7,402.4	79.33	88.47	7,066.0	884.1	-273.0	-273.0	10.00	9.90	Codell
7,500.0	89.00	89.86	7,075.9	885.5	-176.0	-176.0	10.00	9.90	
7,510.1	90.00	90.00	7,076.0	885.6	-165.9	-165.9	10.00	9.90	LP @ 7076' TVD; 90°
7,600.0	90.00	90.00	7,076.0	885.6	-76.0	-76.0	0.00	0.00	
7,700.0	90.00	90.00	7,076.0	885.6	24.0	24.0	0.00	0.00	
7,800.0	90.00	90.00	7,076.0	885.6	124.0	124.0	0.00	0.00	
7,900.0	90.00	90.00	7,076.0	885.6	224.0	224.0	0.00	0.00	
8,000.0	90.00	90.00	7,076.0	885.6	324.0	324.0	0.00	0.00	
8,100.0	90.00	90.00	7,076.0	885.6	424.0	424.0	0.00	0.00	
8,200.0	90.00	90.00	7,076.0	885.6	524.0	524.0	0.00	0.00	
8,300.0	90.00	90.00	7,076.0	885.6	624.0	624.0	0.00	0.00	
8,400.0	90.00	90.00	7,076.0	885.6	724.0	724.0	0.00	0.00	
8,500.0	90.00	90.00	7,076.0	885.6	824.0	824.0	0.00	0.00	
8,600.0	90.00	90.00	7,076.0	885.6	924.0	924.0	0.00	0.00	
8,700.0	90.00	90.00	7,076.0	885.6	1,024.0	1,024.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site:	S19-T3N-R68W (Bohrer)	North Reference:	True
Well:	Bohrer 2B-19H-E368	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
8,800.0	90.00	90.00	7,076.0	885.6	1,124.0	1,124.0	0.00	0.00	
8,900.0	90.00	90.00	7,076.0	885.6	1,224.0	1,224.0	0.00	0.00	
9,000.0	90.00	90.00	7,076.0	885.6	1,324.0	1,324.0	0.00	0.00	
9,100.0	90.00	90.00	7,076.0	885.6	1,424.0	1,424.0	0.00	0.00	
9,200.0	90.00	90.00	7,076.0	885.6	1,524.0	1,524.0	0.00	0.00	
9,300.0	90.00	90.00	7,076.0	885.6	1,624.0	1,624.0	0.00	0.00	
9,400.0	90.00	90.00	7,076.0	885.6	1,724.0	1,724.0	0.00	0.00	
9,500.0	90.00	90.00	7,076.0	885.6	1,824.0	1,824.0	0.00	0.00	
9,600.0	90.00	90.00	7,076.0	885.6	1,924.0	1,924.0	0.00	0.00	
9,700.0	90.00	90.00	7,076.0	885.6	2,024.0	2,024.0	0.00	0.00	
9,800.0	90.00	90.00	7,076.0	885.6	2,124.0	2,124.0	0.00	0.00	
9,900.0	90.00	90.00	7,076.0	885.6	2,224.0	2,224.0	0.00	0.00	
10,000.0	90.00	90.00	7,076.0	885.6	2,324.0	2,324.0	0.00	0.00	
10,100.0	90.00	90.00	7,076.0	885.6	2,424.0	2,424.0	0.00	0.00	
10,200.0	90.00	90.00	7,076.0	885.6	2,524.0	2,524.0	0.00	0.00	
10,300.0	90.00	90.00	7,076.0	885.6	2,624.0	2,624.0	0.00	0.00	
10,400.0	90.00	90.00	7,076.0	885.6	2,724.0	2,724.0	0.00	0.00	
10,500.0	90.00	90.00	7,076.0	885.6	2,824.0	2,824.0	0.00	0.00	
10,600.0	90.00	90.00	7,076.0	885.6	2,924.0	2,924.0	0.00	0.00	
10,700.0	90.00	90.00	7,076.0	885.6	3,024.0	3,024.0	0.00	0.00	
10,800.0	90.00	90.00	7,076.0	885.6	3,124.0	3,124.0	0.00	0.00	
10,900.0	90.00	90.00	7,076.0	885.6	3,224.0	3,224.0	0.00	0.00	
11,000.0	90.00	90.00	7,076.0	885.6	3,324.0	3,324.0	0.00	0.00	
11,100.0	90.00	90.00	7,076.0	885.6	3,424.0	3,424.0	0.00	0.00	
11,200.0	90.00	90.00	7,076.0	885.6	3,524.0	3,524.0	0.00	0.00	
11,300.0	90.00	90.00	7,076.0	885.6	3,624.0	3,624.0	0.00	0.00	
11,400.0	90.00	90.00	7,076.0	885.6	3,724.0	3,724.0	0.00	0.00	
11,500.0	90.00	90.00	7,076.0	885.6	3,824.0	3,824.0	0.00	0.00	
11,600.0	90.00	90.00	7,076.0	885.6	3,924.0	3,924.0	0.00	0.00	
11,700.0	90.00	90.00	7,076.0	885.6	4,024.0	4,024.0	0.00	0.00	
11,728.1	90.00	90.00	7,076.0	885.6	4,052.1	4,052.1	0.00	0.00	TD at 11728.1

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									
Bohrer 2B-19H-E368 PE	0.00	0.00	7,076.0	885.6	4,052.1	1,322,190.40	3,129,041.77	40.216880	-105.037940
- plan hits target center									
- Point									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site:	S19-T3N-R68W (Bohrer)	North Reference:	True
Well:	Bohrer 2B-19H-E368	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
285.0	285.0	Fox Hills - BASE				
3,804.6	3,754.0	Sussex				
4,027.7	3,973.0	Sussex Marker				
4,266.0	4,207.0	Shannon				
5,786.7	5,700.0	Teepee Buttes (*if present)				
6,810.4	6,703.0	Sharon Springs				
6,908.5	6,791.0	Niobrara				
6,979.9	6,850.0	B Chalk				
7,017.6	6,879.0	B Marl				
7,073.3	6,919.0	C Chalk				
7,119.2	6,949.0	C Marl				
7,322.9	7,046.0	Ft. Hayes				
7,402.4	7,066.0	Codell				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
300.0	300.0	0.0	0.0	KOP @ 300'	
1,395.9	1,389.3	76.7	-70.9	EOB; Inc=10.96°	
6,536.0	6,435.6	794.5	-734.1	Start build/turn @ 6536' MD	
7,510.1	7,076.0	885.6	-165.9	LP @ 7076' TVD; 90°	
11,728.1	7,076.0	885.6	4,052.1	TD at 11728.1	

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S19-T3N-R68W (Bohrer)

Bohrer 2B-19H-E368

Hz

Plan #1

Anticollision Report

30 June, 2013

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	6/30/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,728.1	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						
S19-T3N-R68W (Bohrer)						
Bohrer 2A-19H-E368 - Hz - Plan #1	200.0	200.0	10.9	10.3	17.897	CC, ES
Bohrer 2A-19H-E368 - Hz - Plan #1	11,728.1	11,571.3	411.0	224.2	2.200	SF
Bohrer 2C-19H-E368 - Hz - Plan #1	300.0	299.0	10.9	10.0	11.401	CC, ES
Bohrer 2C-19H-E368 - Hz - Plan #1	11,728.1	11,480.7	410.5	223.8	2.199	SF
Bohrer 2D-19H-E368 - Hz - Plan #1	300.0	299.0	18.2	17.3	19.005	CC, ES
Bohrer 2D-19H-E368 - Hz - Plan #1	700.0	699.2	28.3	25.9	11.963	SF
Bohrer 2E-19H-E368 - Hz - Plan #1	300.0	299.0	29.1	28.2	30.410	CC, ES
Bohrer 2E-19H-E368 - Hz - Plan #1	700.0	698.7	40.5	38.1	17.126	SF
Bohrer 2F-19H-E368 - Hz - Plan #1	300.0	299.0	40.1	39.1	41.816	CC, ES
Bohrer 2F-19H-E368 - Hz - Plan #1	800.0	797.3	60.5	57.7	22.124	SF
Bohrer 2G-19H-E368 - Hz - Plan #1	300.0	299.0	47.4	46.4	49.419	CC, ES
Bohrer 2G-19H-E368 - Hz - Plan #1	700.0	696.7	63.2	60.8	26.629	SF
Bohrer 2H-19H-E368 - Hz - Plan #1	300.0	298.0	58.3	57.3	60.936	CC, ES
Bohrer 2H-19H-E368 - Hz - Plan #1	800.0	791.7	91.7	88.9	33.371	SF
Bohrer 2I-19H-E368 - Hz - Plan #1	200.0	198.0	69.2	68.6	113.949	CC, ES
Bohrer 2I-19H-E368 - Hz - Plan #1	800.0	788.3	112.1	109.4	40.793	SF
BOHRER TRUST 21-19 (EXISTING) - ENCANA WELL - S	8,813.7	7,324.7	230.4	164.6	3.502	CC, ES, SF
BOYD 3-19 (EXISTING) - ENCANA WELL - SURVEYS						
Boyd 3B-19H-M368 - Hz - Plan #1						Out of range
Boyd 3C-19H-M368 - Hz - Plan #1						Out of range
Boyd 3D-19H-M368 - Hz - Plan #1						Out of range
Boyd 3E-19H-M368 - Hz - Plan #1						Out of range
Boyd 3F-19H-M368 - Hz - Plan #1						Out of range
Boyd 3G-19H-M368 - Hz - Plan #1						Out of range

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - Bohrer 2A-19H-E368 - 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	0.00	10.9	0.0	10.9					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	10.9	0.0	10.9	10.7	0.26	41.760		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.61	17.897 CC, ES		
300.0	300.0	299.8	299.8	0.5	0.5	-2.38	11.7	-0.5	11.7	10.7	0.96	12.146		
400.0	400.0	399.6	399.6	0.7	0.7	36.90	13.8	-1.9	13.3	11.9	1.31	10.119		
500.0	500.0	499.4	499.3	0.8	0.8	35.09	17.4	-4.4	15.0	13.4	1.66	9.032		
600.0	599.9	599.1	598.8	1.0	1.0	34.47	22.5	-7.7	16.9	14.9	2.02	8.378		
700.0	699.7	698.8	698.2	1.2	1.3	34.68	29.0	-12.1	18.9	16.6	2.38	7.952		
800.0	799.4	798.5	797.4	1.4	1.5	35.49	36.9	-17.4	21.1	18.4	2.76	7.658		
900.0	898.9	898.1	896.4	1.7	1.7	36.71	46.2	-23.6	23.4	20.3	3.15	7.442		
1,000.0	998.3	997.7	995.1	1.9	2.0	38.21	57.0	-30.9	25.9	22.3	3.56	7.271		
1,100.0	1,097.4	1,097.3	1,093.6	2.2	2.3	39.90	69.2	-39.0	28.5	24.5	4.00	7.126		
1,200.0	1,196.3	1,196.8	1,191.8	2.5	2.6	41.69	82.8	-48.1	31.3	26.8	4.48	6.992		
1,300.0	1,294.9	1,296.3	1,289.6	2.8	3.0	43.54	97.8	-58.2	34.3	29.3	5.00	6.862		
1,400.0	1,393.3	1,395.7	1,387.0	3.1	3.4	45.41	114.2	-69.2	37.5	31.9	5.57	6.733		
1,500.0	1,491.4	1,495.1	1,484.1	3.5	3.8	46.33	132.0	-81.1	41.5	35.4	6.14	6.755		
1,600.0	1,589.6	1,594.3	1,580.6	3.8	4.2	45.78	151.2	-94.0	46.9	40.2	6.69	7.014		
1,700.0	1,687.8	1,694.2	1,677.5	4.2	4.6	44.84	171.1	-107.3	52.9	45.7	7.21	7.341		
1,800.0	1,786.0	1,794.0	1,774.4	4.6	5.1	44.10	191.0	-120.7	59.0	51.3	7.74	7.623		
1,900.0	1,884.1	1,893.8	1,871.3	4.9	5.5	43.50	210.9	-134.0	65.0	56.8	8.27	7.868		
2,000.0	1,982.3	1,993.6	1,968.2	5.3	5.9	43.00	230.8	-147.3	71.1	62.3	8.79	8.084		
2,100.0	2,080.5	2,093.4	2,065.1	5.7	6.4	42.57	250.7	-160.7	77.2	67.8	9.32	8.275		
2,200.0	2,178.7	2,193.2	2,162.0	6.0	6.8	42.21	270.6	-174.0	83.2	73.4	9.85	8.445		
2,300.0	2,276.8	2,293.0	2,258.9	6.4	7.3	41.90	290.5	-187.3	89.3	78.9	10.39	8.597		
2,400.0	2,375.0	2,392.9	2,355.8	6.8	7.7	41.63	310.4	-200.7	95.4	84.4	10.92	8.735		
2,500.0	2,473.2	2,492.7	2,452.7	7.1	8.2	41.39	330.3	-214.0	101.4	90.0	11.45	8.859		
2,600.0	2,571.4	2,592.5	2,549.6	7.5	8.6	41.17	350.2	-227.3	107.5	95.5	11.98	8.972		
2,700.0	2,669.5	2,692.3	2,646.5	7.9	9.1	40.98	370.0	-240.7	113.6	101.1	12.52	9.075		
2,800.0	2,767.7	2,792.1	2,743.4	8.3	9.5	40.81	389.9	-254.0	119.7	106.6	13.05	9.170		
2,900.0	2,865.9	2,891.9	2,840.3	8.6	10.0	40.66	409.8	-267.3	125.7	112.2	13.58	9.257		
3,000.0	2,964.1	2,991.8	2,937.2	9.0	10.4	40.52	429.7	-280.7	131.8	117.7	14.12	9.337		
3,100.0	3,062.3	3,091.6	3,034.1	9.4	10.9	40.39	449.6	-294.0	137.9	123.2	14.65	9.412		
3,200.0	3,160.4	3,191.4	3,131.0	9.8	11.4	40.28	469.5	-307.3	144.0	128.8	15.19	9.481		
3,300.0	3,258.6	3,291.2	3,227.9	10.1	11.8	40.17	489.4	-320.7	150.0	134.3	15.72	9.545		
3,400.0	3,356.8	3,391.0	3,324.8	10.5	12.3	40.07	509.3	-334.0	156.1	139.9	16.26	9.605		
3,500.0	3,455.0	3,490.8	3,421.7	10.9	12.7	39.98	529.2	-347.4	162.2	145.4	16.79	9.661		
3,600.0	3,553.1	3,590.6	3,518.6	11.3	13.2	39.89	549.1	-360.7	168.3	151.0	17.33	9.714		
3,700.0	3,651.3	3,690.5	3,615.5	11.6	13.6	39.81	569.0	-374.0	174.4	156.5	17.86	9.763		
3,800.0	3,749.5	3,790.3	3,712.4	12.0	14.1	39.74	588.9	-387.4	180.5	162.1	18.40	9.809		
3,900.0	3,847.7	3,890.1	3,809.3	12.4	14.5	39.67	608.8	-400.7	186.5	167.6	18.93	9.853		
4,000.0	3,945.8	3,989.9	3,906.2	12.8	15.0	39.61	628.7	-414.0	192.6	173.1	19.47	9.894		
4,100.0	4,044.0	4,089.7	4,003.1	13.1	15.4	39.55	648.6	-427.4	198.7	178.7	20.00	9.933		
4,200.0	4,142.2	4,189.5	4,100.0	13.5	15.9	39.49	668.5	-440.7	204.8	184.2	20.54	9.970		
4,300.0	4,240.4	4,289.3	4,196.9	13.9	16.3	39.44	688.4	-454.0	210.9	189.8	21.07	10.005		
4,400.0	4,338.5	4,389.2	4,293.8	14.3	16.8	39.39	708.3	-467.4	216.9	195.3	21.61	10.039		
4,500.0	4,436.7	4,489.0	4,390.7	14.6	17.3	39.34	728.2	-480.7	223.0	200.9	22.15	10.070		
4,600.0	4,534.9	4,588.8	4,487.6	15.0	17.7	39.29	748.1	-494.0	229.1	206.4	22.68	10.101		
4,700.0	4,633.1	4,688.6	4,584.5	15.4	18.2	39.25	768.0	-507.4	235.2	212.0	23.22	10.129		
4,800.0	4,731.2	4,788.4	4,681.4	15.8	18.6	39.21	787.9	-520.7	241.3	217.5	23.76	10.157		
4,900.0	4,829.4	4,888.2	4,778.3	16.1	19.1	39.17	807.8	-534.0	247.4	223.1	24.29	10.183		
5,000.0	4,927.6	4,988.0	4,875.2	16.5	19.5	39.13	827.7	-547.4	253.4	228.6	24.83	10.208		
5,100.0	5,025.8	5,087.9	4,972.1	16.9	20.0	39.10	847.6	-560.7	259.5	234.2	25.36	10.232		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - Bohrer 2A-19H-E368 - 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)			
5,200.0	5,124.0	5,187.7	5,069.0	17.3	20.4	39.06	867.5	-574.1	265.6	239.7	25.90	10.255	
5,300.0	5,222.1	5,287.5	5,165.8	17.6	20.9	39.03	887.4	-587.4	271.7	245.3	26.44	10.277	
5,400.0	5,320.3	5,387.3	5,262.7	18.0	21.4	39.00	907.3	-600.7	277.8	250.8	26.97	10.298	
5,500.0	5,418.5	5,487.1	5,359.6	18.4	21.8	38.97	927.2	-614.1	283.9	256.4	27.51	10.318	
5,600.0	5,516.7	5,586.9	5,456.5	18.8	22.3	38.94	947.1	-627.4	290.0	261.9	28.05	10.338	
5,700.0	5,614.8	5,686.7	5,553.4	19.2	22.7	38.92	967.0	-640.7	296.0	267.5	28.58	10.357	
5,800.0	5,713.0	5,786.6	5,650.3	19.5	23.2	38.89	986.9	-654.1	302.1	273.0	29.12	10.375	
5,900.0	5,811.2	5,886.4	5,747.2	19.9	23.6	38.87	1,006.8	-667.4	308.2	278.5	29.66	10.392	
6,000.0	5,909.4	5,986.2	5,844.1	20.3	24.1	38.84	1,026.7	-680.7	314.3	284.1	30.19	10.409	
6,100.0	6,007.5	6,086.0	5,941.0	20.7	24.5	38.82	1,046.6	-694.1	320.4	289.6	30.73	10.425	
6,200.0	6,105.7	6,185.8	6,037.9	21.0	25.0	38.80	1,066.5	-707.4	326.5	295.2	31.27	10.441	
6,300.0	6,203.9	6,285.6	6,134.8	21.4	25.5	38.77	1,086.4	-720.7	332.5	300.7	31.80	10.456	
6,400.0	6,302.1	6,385.7	6,232.0	21.8	25.9	38.76	1,106.3	-734.0	338.6	306.3	32.34	10.470	
6,500.0	6,400.2	6,487.4	6,331.4	22.2	26.2	40.49	1,126.7	-737.1	344.3	310.8	33.48	10.286	
6,600.0	6,498.7	6,583.8	6,424.8	22.5	26.4	9.50	1,145.9	-723.5	350.7	315.3	35.41	9.904	
6,700.0	6,597.4	6,676.4	6,511.1	22.6	26.5	-41.01	1,163.6	-695.5	358.6	321.7	36.83	9.736	
6,800.0	6,693.3	6,765.9	6,589.4	22.6	26.4	-55.84	1,179.7	-655.3	367.5	330.1	37.38	9.831	
6,900.0	6,783.7	6,850.0	6,656.5	22.4	26.3	-59.75	1,193.5	-606.6	376.8	339.8	36.97	10.193	
7,000.0	6,865.7	6,937.9	6,718.3	22.1	26.1	-60.38	1,206.2	-545.7	385.8	350.2	35.64	10.828	
7,100.0	6,936.8	7,021.2	6,767.9	21.7	25.9	-60.04	1,216.4	-479.6	394.1	360.5	33.60	11.731	
7,200.0	6,994.9	7,100.0	6,805.7	21.3	25.7	-59.47	1,224.1	-410.9	401.1	369.9	31.23	12.845	
7,300.0	7,038.3	7,184.5	6,835.6	20.9	25.5	-58.85	1,230.3	-332.3	406.4	377.4	29.00	14.012	
7,400.0	7,065.6	7,265.0	6,853.2	20.7	25.3	-58.45	1,233.9	-253.8	409.8	382.2	27.58	14.858	
7,500.0	7,075.9	7,345.3	6,859.9	20.5	25.3	-58.30	1,235.3	-173.9	411.0	383.6	27.45	14.972	
7,600.0	7,076.0	7,443.2	6,860.0	20.5	25.3	-58.30	1,235.3	-76.0	411.0	382.3	28.76	14.290	
7,700.0	7,076.0	7,543.2	6,860.0	20.9	25.5	-58.30	1,235.3	24.0	411.0	380.4	30.61	13.429	
7,800.0	7,076.0	7,643.2	6,860.0	21.6	26.0	-58.30	1,235.3	124.0	411.0	378.1	32.89	12.496	
7,900.0	7,076.0	7,743.2	6,860.0	22.7	26.7	-58.30	1,235.3	224.0	411.0	375.5	35.53	11.568	
8,000.0	7,076.0	7,843.2	6,860.0	24.1	27.7	-58.30	1,235.3	324.0	411.0	372.6	38.46	10.689	
8,100.0	7,076.0	7,943.2	6,860.0	25.8	28.9	-58.30	1,235.3	424.0	411.0	369.4	41.60	9.881	
8,200.0	7,076.0	8,043.2	6,860.0	27.6	30.3	-58.30	1,235.3	524.0	411.0	366.1	44.92	9.150	
8,300.0	7,076.0	8,143.2	6,860.0	29.6	32.0	-58.30	1,235.3	624.0	411.0	362.7	48.38	8.496	
8,400.0	7,076.0	8,243.2	6,860.0	31.6	33.8	-58.30	1,235.3	724.0	411.0	359.1	51.96	7.911	
8,500.0	7,076.0	8,343.2	6,860.0	33.7	35.7	-58.30	1,235.3	824.0	411.0	355.4	55.62	7.390	
8,600.0	7,076.0	8,443.2	6,860.0	35.8	37.6	-58.30	1,235.3	924.0	411.0	351.7	59.35	6.925	
8,700.0	7,076.0	8,543.2	6,860.0	38.0	39.7	-58.30	1,235.3	1,024.0	411.0	347.9	63.15	6.509	
8,800.0	7,076.0	8,643.2	6,860.0	40.2	41.8	-58.30	1,235.3	1,124.0	411.0	344.0	67.00	6.135	
8,900.0	7,076.0	8,743.2	6,860.0	42.4	43.9	-58.30	1,235.3	1,224.0	411.0	340.2	70.89	5.799	
9,000.0	7,076.0	8,843.2	6,860.0	44.7	46.1	-58.30	1,235.3	1,324.0	411.0	336.2	74.81	5.494	
9,100.0	7,076.0	8,943.2	6,860.0	47.0	48.3	-58.30	1,235.3	1,424.0	411.0	332.3	78.77	5.218	
9,200.0	7,076.0	9,043.2	6,860.0	49.3	50.5	-58.30	1,235.3	1,524.0	411.0	328.3	82.75	4.967	
9,300.0	7,076.0	9,143.2	6,860.0	51.6	52.8	-58.30	1,235.3	1,624.0	411.0	324.3	86.75	4.738	
9,400.0	7,076.0	9,243.2	6,860.0	53.9	55.0	-58.30	1,235.3	1,724.0	411.0	320.3	90.77	4.528	
9,500.0	7,076.0	9,343.2	6,860.0	56.2	57.3	-58.30	1,235.3	1,824.0	411.0	316.2	94.81	4.335	
9,600.0	7,076.0	9,443.2	6,860.0	58.6	59.6	-58.30	1,235.3	1,924.0	411.0	312.2	98.86	4.158	
9,700.0	7,076.0	9,543.2	6,860.0	60.9	61.9	-58.30	1,235.3	2,024.0	411.0	308.1	102.93	3.993	
9,800.0	7,076.0	9,643.2	6,860.0	63.3	64.3	-58.30	1,235.3	2,124.0	411.0	304.0	107.01	3.841	
9,900.0	7,076.0	9,743.2	6,860.0	65.7	66.6	-58.30	1,235.3	2,224.0	411.0	299.9	111.10	3.700	
10,000.0	7,076.0	9,843.2	6,860.0	68.1	69.0	-58.30	1,235.3	2,324.0	411.0	295.8	115.19	3.568	
10,100.0	7,076.0	9,943.2	6,860.0	70.4	71.3	-58.30	1,235.3	2,424.0	411.0	291.7	119.30	3.445	
10,200.0	7,076.0	10,043.2	6,860.0	72.8	73.7	-58.30	1,235.3	2,524.0	411.0	287.6	123.41	3.331	
10,300.0	7,076.0	10,143.2	6,860.0	75.2	76.0	-58.30	1,235.3	2,624.0	411.0	283.5	127.53	3.223	

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - Bohrer 2A-19H-E368 - Hz - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)			
10,400.0	7,076.0	10,243.2	6,860.0	77.6	78.4	-58.30	1,235.3	2,724.0	411.0	279.4	131.66	3.122	
10,500.0	7,076.0	10,343.2	6,860.0	80.0	80.8	-58.30	1,235.3	2,824.0	411.0	275.3	135.79	3.027	
10,600.0	7,076.0	10,443.2	6,860.0	82.5	83.2	-58.30	1,235.3	2,924.0	411.0	271.1	139.92	2.938	
10,700.0	7,076.0	10,543.2	6,860.0	84.9	85.6	-58.30	1,235.3	3,024.0	411.0	267.0	144.07	2.853	
10,800.0	7,076.0	10,643.2	6,860.0	87.3	88.0	-58.30	1,235.3	3,124.0	411.0	262.8	148.21	2.773	
10,900.0	7,076.0	10,743.2	6,860.0	89.7	90.4	-58.30	1,235.3	3,224.0	411.0	258.7	152.36	2.698	
11,000.0	7,076.0	10,843.2	6,860.0	92.1	92.8	-58.30	1,235.3	3,324.0	411.0	254.5	156.51	2.626	
11,100.0	7,076.0	10,943.2	6,860.0	94.6	95.2	-58.30	1,235.3	3,424.0	411.0	250.4	160.67	2.558	
11,200.0	7,076.0	11,043.2	6,860.0	97.0	97.6	-58.30	1,235.3	3,524.0	411.0	246.2	164.83	2.494	
11,300.0	7,076.0	11,143.2	6,860.0	99.4	100.0	-58.30	1,235.3	3,624.0	411.0	242.1	168.99	2.432	
11,400.0	7,076.0	11,243.2	6,860.0	101.9	102.4	-58.30	1,235.3	3,724.0	411.0	237.9	173.15	2.374	
11,500.0	7,076.0	11,343.2	6,860.0	104.3	104.9	-58.30	1,235.3	3,824.0	411.0	233.7	177.32	2.318	
11,600.0	7,076.0	11,443.2	6,860.0	106.7	107.3	-58.30	1,235.3	3,924.0	411.0	229.6	181.49	2.265	
11,700.0	7,076.0	11,543.2	6,860.0	109.2	109.7	-58.30	1,235.3	4,024.0	411.0	225.4	185.66	2.214	
11,728.1	7,076.0	11,571.3	6,860.0	109.8	110.4	-58.30	1,235.3	4,052.1	411.0	224.2	186.83	2.200 SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - Bohrer 2C-19H-E368 - 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	180.00	-10.9	0.0	11.0					
100.0	100.0	99.0	99.0	0.1	0.1	180.00	-10.9	0.0	10.9	10.7	0.26	41.938	CC, ES	
200.0	200.0	199.0	199.0	0.3	0.3	180.00	-10.9	0.0	10.9	10.3	0.61	17.935		
300.0	300.0	299.0	299.0	0.5	0.5	180.00	-10.9	0.0	10.9	10.0	0.96	11.401		
400.0	400.0	399.0	399.0	0.7	0.7	-140.19	-10.9	0.0	11.6	10.3	1.31	8.857		
500.0	500.0	499.1	499.1	0.8	0.8	-144.50	-10.5	-0.7	13.1	11.5	1.66	7.913		
600.0	599.9	599.3	599.2	1.0	1.0	-146.63	-9.0	-2.9	15.0	13.0	2.01	7.448		
700.0	699.7	699.4	699.3	1.2	1.2	-147.18	-6.6	-6.5	17.1	14.8	2.37	7.221		
800.0	799.4	799.6	799.3	1.4	1.4	-146.65	-3.2	-11.6	19.5	16.8	2.74	7.124		
900.0	898.9	899.8	899.2	1.7	1.6	-145.40	1.1	-18.2	22.2	19.1	3.13	7.101		
1,000.0	998.3	1,000.0	999.0	1.9	1.8	-143.70	6.4	-26.2	25.2	21.7	3.54	7.118		
1,100.0	1,097.4	1,100.3	1,098.5	2.2	2.1	-141.76	12.6	-35.7	28.5	24.5	3.98	7.154		
1,200.0	1,196.3	1,200.5	1,197.9	2.5	2.3	-139.69	19.8	-46.6	32.1	27.6	4.46	7.193		
1,300.0	1,294.9	1,300.8	1,297.1	2.8	2.6	-137.59	28.0	-59.0	36.1	31.1	4.99	7.228		
1,400.0	1,393.3	1,400.8	1,395.8	3.1	2.9	-135.91	37.0	-72.5	40.5	35.0	5.55	7.305		
1,500.0	1,491.4	1,500.7	1,494.3	3.5	3.2	-135.16	46.0	-86.1	45.5	39.4	6.11	7.447		
1,600.0	1,589.6	1,600.6	1,592.9	3.8	3.5	-134.56	54.9	-99.7	50.5	43.8	6.69	7.554		
1,700.0	1,687.8	1,700.4	1,691.4	4.2	3.9	-134.07	63.9	-113.4	55.5	48.3	7.27	7.637		
1,800.0	1,786.0	1,800.3	1,789.9	4.6	4.2	-133.65	72.9	-127.0	60.6	52.7	7.86	7.701		
1,900.0	1,884.1	1,900.2	1,888.4	4.9	4.5	-133.31	81.9	-140.6	65.6	57.1	8.46	7.753		
2,000.0	1,982.3	2,000.1	1,987.0	5.3	4.8	-133.01	90.9	-154.2	70.6	61.5	9.06	7.794		
2,100.0	2,080.5	2,099.9	2,085.5	5.7	5.2	-132.75	99.9	-167.8	75.6	66.0	9.66	7.827		
2,200.0	2,178.7	2,199.8	2,184.0	6.0	5.5	-132.52	108.9	-181.5	80.6	70.4	10.27	7.855		
2,300.0	2,276.8	2,299.7	2,282.6	6.4	5.8	-132.32	117.9	-195.1	85.7	74.8	10.87	7.878		
2,400.0	2,375.0	2,399.6	2,381.1	6.8	6.1	-132.14	126.9	-208.7	90.7	79.2	11.48	7.898		
2,500.0	2,473.2	2,499.4	2,479.6	7.1	6.5	-131.98	135.9	-222.3	95.7	83.6	12.09	7.914		
2,600.0	2,571.4	2,599.3	2,578.2	7.5	6.8	-131.84	144.9	-235.9	100.7	88.0	12.71	7.929		
2,700.0	2,669.5	2,699.2	2,676.7	7.9	7.1	-131.71	153.9	-249.6	105.8	92.4	13.32	7.941		
2,800.0	2,767.7	2,799.1	2,775.2	8.3	7.5	-131.59	162.9	-263.2	110.8	96.9	13.93	7.951		
2,900.0	2,865.9	2,898.9	2,873.7	8.6	7.8	-131.48	171.9	-276.8	115.8	101.3	14.55	7.960		
3,000.0	2,964.1	2,998.8	2,972.3	9.0	8.1	-131.39	180.9	-290.4	120.8	105.7	15.17	7.968		
3,100.0	3,062.3	3,098.7	3,070.8	9.4	8.5	-131.29	189.9	-304.0	125.9	110.1	15.78	7.975		
3,200.0	3,160.4	3,198.5	3,169.3	9.8	8.8	-131.21	198.9	-317.7	130.9	114.5	16.40	7.982		
3,300.0	3,258.6	3,298.4	3,267.9	10.1	9.1	-131.13	207.9	-331.3	135.9	118.9	17.02	7.987		
3,400.0	3,356.8	3,398.3	3,366.4	10.5	9.5	-131.06	216.9	-344.9	141.0	123.3	17.64	7.992		
3,500.0	3,455.0	3,498.2	3,464.9	10.9	9.8	-130.99	225.9	-358.5	146.0	127.7	18.26	7.997		
3,600.0	3,553.1	3,598.0	3,563.5	11.3	10.1	-130.93	234.9	-372.2	151.0	132.1	18.88	8.001		
3,700.0	3,651.3	3,697.9	3,662.0	11.6	10.5	-130.87	243.9	-385.8	156.0	136.6	19.50	8.004		
3,800.0	3,749.5	3,797.8	3,760.5	12.0	10.8	-130.82	252.9	-399.4	161.1	141.0	20.12	8.007		
3,900.0	3,847.7	3,897.7	3,859.1	12.4	11.1	-130.77	261.9	-413.0	166.1	145.4	20.74	8.010		
4,000.0	3,945.8	3,997.5	3,957.6	12.8	11.5	-130.72	270.9	-426.6	171.1	149.8	21.36	8.013		
4,100.0	4,044.0	4,097.4	4,056.1	13.1	11.8	-130.67	279.8	-440.3	176.2	154.2	21.98	8.015		
4,200.0	4,142.2	4,197.3	4,154.6	13.5	12.1	-130.63	288.8	-453.9	181.2	158.6	22.60	8.018		
4,300.0	4,240.4	4,297.2	4,253.2	13.9	12.5	-130.59	297.8	-467.5	186.2	163.0	23.22	8.020		
4,400.0	4,338.5	4,397.0	4,351.7	14.3	12.8	-130.55	306.8	-481.1	191.3	167.4	23.84	8.021		
4,500.0	4,436.7	4,496.9	4,450.2	14.6	13.1	-130.51	315.8	-494.7	196.3	171.8	24.46	8.023		
4,600.0	4,534.9	4,596.8	4,548.8	15.0	13.5	-130.48	324.8	-508.4	201.3	176.2	25.09	8.025		
4,700.0	4,633.1	4,696.6	4,647.3	15.4	13.8	-130.44	333.8	-522.0	206.3	180.6	25.71	8.026		
4,800.0	4,731.2	4,796.5	4,745.8	15.8	14.1	-130.41	342.8	-535.6	211.4	185.0	26.33	8.028		
4,900.0	4,829.4	4,896.4	4,844.4	16.1	14.5	-130.38	351.8	-549.2	216.4	189.5	26.95	8.029		
5,000.0	4,927.6	4,996.3	4,942.9	16.5	14.8	-130.35	360.8	-562.8	221.4	193.9	27.58	8.030		
5,100.0	5,025.8	5,096.1	5,041.4	16.9	15.2	-130.32	369.8	-576.5	226.5	198.3	28.20	8.031		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - Bohrer 2C-19H-E368 - 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)				
5,200.0	5,124.0	5,196.0	5,139.9	17.3	15.5	-130.30	378.8	-590.1	231.5	202.7	28.82	8.032		
5,300.0	5,222.1	5,295.9	5,238.5	17.6	15.8	-130.27	387.8	-603.7	236.5	207.1	29.45	8.033		
5,400.0	5,320.3	5,395.8	5,337.0	18.0	16.2	-130.25	396.8	-617.3	241.6	211.5	30.07	8.034		
5,500.0	5,418.5	5,495.6	5,435.5	18.4	16.5	-130.22	405.8	-630.9	246.6	215.9	30.69	8.035		
5,600.0	5,516.7	5,595.5	5,534.1	18.8	16.8	-130.20	414.8	-644.6	251.6	220.3	31.31	8.035		
5,700.0	5,614.8	5,695.4	5,632.6	19.2	17.2	-130.18	423.8	-658.2	256.7	224.7	31.94	8.036		
5,800.0	5,713.0	5,795.3	5,731.1	19.5	17.5	-130.16	432.8	-671.8	261.7	229.1	32.56	8.037		
5,900.0	5,811.2	5,895.1	5,829.7	19.9	17.8	-130.14	441.8	-685.4	266.7	233.5	33.18	8.037		
6,000.0	5,909.4	5,995.0	5,928.2	20.3	18.2	-130.12	450.8	-699.1	271.7	237.9	33.81	8.038		
6,100.0	6,007.5	6,094.9	6,026.7	20.7	18.5	-130.10	459.8	-712.7	276.8	242.3	34.43	8.038		
6,200.0	6,105.7	6,194.7	6,125.3	21.0	18.8	-130.09	468.8	-726.3	281.8	246.8	35.06	8.039		
6,300.0	6,203.9	6,295.5	6,224.6	21.4	19.2	-130.10	477.8	-739.9	286.8	251.2	35.67	8.041		
6,400.0	6,302.1	6,400.6	6,329.2	21.8	19.3	-132.43	487.4	-742.2	290.6	255.2	35.45	8.198		
6,500.0	6,400.2	6,498.6	6,425.4	22.2	19.3	-137.86	496.2	-727.1	294.5	260.4	34.02	8.655		
6,600.0	6,498.7	6,586.7	6,508.7	22.5	19.1	179.69	503.8	-699.6	302.4	270.8	31.65	9.556		
6,700.0	6,597.4	6,669.8	6,582.5	22.6	18.7	117.89	510.5	-662.2	315.1	285.9	29.19	10.793		
6,800.0	6,693.3	6,750.0	6,648.0	22.6	18.4	92.95	516.5	-616.3	330.6	303.5	27.15	12.176		
6,900.0	6,783.7	6,826.1	6,703.6	22.4	17.9	80.47	521.6	-564.7	347.4	321.7	25.69	13.522		
7,000.0	6,865.7	6,900.0	6,750.6	22.1	17.5	72.56	525.9	-507.9	363.9	339.2	24.70	14.732		
7,100.0	6,936.8	6,973.8	6,790.0	21.7	17.1	67.04	529.5	-445.7	379.0	354.9	24.10	15.724		
7,200.0	6,994.9	7,050.0	6,821.9	21.3	16.7	63.11	532.4	-376.6	391.8	367.9	23.84	16.437		
7,300.0	7,038.3	7,116.5	6,842.0	20.9	16.5	60.59	534.2	-313.3	401.5	377.5	23.98	16.741		
7,400.0	7,065.6	7,186.9	6,855.3	20.7	16.2	59.04	535.4	-244.2	407.8	383.3	24.55	16.613		
7,500.0	7,075.9	7,256.9	6,860.0	20.5	16.1	58.43	535.8	-174.4	410.5	384.9	25.56	16.062		
7,600.0	7,076.0	7,355.3	6,860.0	20.5	16.1	58.42	535.8	-76.0	410.5	383.5	27.02	15.195		
7,700.0	7,076.0	7,455.3	6,860.0	20.9	17.0	58.42	535.8	24.0	410.5	381.5	28.97	14.171		
7,800.0	7,076.0	7,555.3	6,860.0	21.6	18.5	58.42	535.8	124.0	410.5	379.1	31.37	13.086		
7,900.0	7,076.0	7,655.3	6,860.0	22.7	20.2	58.42	535.8	224.0	410.5	376.4	34.13	12.028		
8,000.0	7,076.0	7,755.3	6,860.0	24.1	22.0	58.42	535.8	324.0	410.5	373.4	37.16	11.047		
8,100.0	7,076.0	7,855.3	6,860.0	25.8	23.9	58.42	535.8	424.0	410.5	370.1	40.41	10.159		
8,200.0	7,076.0	7,955.3	6,860.0	27.6	25.9	58.42	535.8	524.0	410.5	366.7	43.82	9.367		
8,300.0	7,076.0	8,055.3	6,860.0	29.6	28.0	58.42	535.8	624.0	410.5	363.1	47.37	8.666		
8,400.0	7,076.0	8,155.3	6,860.0	31.6	30.1	58.42	535.8	724.0	410.5	359.5	51.02	8.047		
8,500.0	7,076.0	8,255.3	6,860.0	33.7	32.2	58.42	535.8	824.0	410.5	355.8	54.75	7.498		
8,600.0	7,076.0	8,355.3	6,860.0	35.8	34.5	58.42	535.8	924.0	410.5	352.0	58.54	7.012		
8,700.0	7,076.0	8,455.3	6,860.0	38.0	36.7	58.42	535.8	1,024.0	410.5	348.1	62.40	6.579		
8,800.0	7,076.0	8,555.3	6,860.0	40.2	39.0	58.42	535.8	1,124.0	410.5	344.2	66.29	6.193		
8,900.0	7,076.0	8,655.3	6,860.0	42.4	41.3	58.42	535.8	1,224.0	410.5	340.3	70.23	5.846		
9,000.0	7,076.0	8,755.3	6,860.0	44.7	43.6	58.42	535.8	1,324.0	410.5	336.3	74.19	5.533		
9,100.0	7,076.0	8,855.3	6,860.0	47.0	45.9	58.42	535.8	1,424.0	410.5	332.3	78.18	5.251		
9,200.0	7,076.0	8,955.3	6,860.0	49.3	48.2	58.42	535.8	1,524.0	410.5	328.3	82.20	4.994		
9,300.0	7,076.0	9,055.3	6,860.0	51.6	50.6	58.42	535.8	1,624.0	410.5	324.3	86.24	4.760		
9,400.0	7,076.0	9,155.3	6,860.0	53.9	52.9	58.42	535.8	1,724.0	410.5	320.2	90.29	4.547		
9,500.0	7,076.0	9,255.3	6,860.0	56.2	55.3	58.42	535.8	1,824.0	410.5	316.2	94.35	4.351		
9,600.0	7,076.0	9,355.3	6,860.0	58.6	57.7	58.42	535.8	1,924.0	410.5	312.1	98.43	4.170		
9,700.0	7,076.0	9,455.3	6,860.0	60.9	60.1	58.42	535.8	2,024.0	410.5	308.0	102.52	4.004		
9,800.0	7,076.0	9,555.3	6,860.0	63.3	62.5	58.42	535.8	2,124.0	410.5	303.9	106.63	3.850		
9,900.0	7,076.0	9,655.3	6,860.0	65.7	64.9	58.42	535.8	2,224.0	410.5	299.8	110.74	3.707		
10,000.0	7,076.0	9,755.3	6,860.0	68.1	67.3	58.42	535.8	2,324.0	410.5	295.7	114.85	3.574		
10,100.0	7,076.0	9,855.3	6,860.0	70.4	69.7	58.42	535.8	2,424.0	410.5	291.5	118.98	3.450		
10,200.0	7,076.0	9,955.3	6,860.0	72.8	72.1	58.42	535.8	2,524.0	410.5	287.4	123.11	3.334		
10,300.0	7,076.0	10,055.3	6,860.0	75.2	74.5	58.42	535.8	2,624.0	410.5	283.3	127.25	3.226		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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												S19-T3N-R68W (Bohrer) - Bohrer 2C-19H-E368 - 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 Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor					
10,400.0	7,076.0	10,155.3	6,860.0	77.6	77.0	58.42	535.8	2,724.0	410.5	279.1	131.39	3.124					
10,500.0	7,076.0	10,255.3	6,860.0	80.0	79.4	58.42	535.8	2,824.0	410.5	275.0	135.54	3.029					
10,600.0	7,076.0	10,355.3	6,860.0	82.5	81.8	58.42	535.8	2,924.0	410.5	270.8	139.69	2.939					
10,700.0	7,076.0	10,455.3	6,860.0	84.9	84.2	58.42	535.8	3,024.0	410.5	266.7	143.85	2.854					
10,800.0	7,076.0	10,555.3	6,860.0	87.3	86.7	58.42	535.8	3,124.0	410.5	262.5	148.01	2.774					
10,900.0	7,076.0	10,655.3	6,860.0	89.7	89.1	58.42	535.8	3,224.0	410.5	258.3	152.17	2.698					
11,000.0	7,076.0	10,755.3	6,860.0	92.1	91.5	58.42	535.8	3,324.0	410.5	254.2	156.34	2.626					
11,100.0	7,076.0	10,855.3	6,860.0	94.6	94.0	58.42	535.8	3,424.0	410.5	250.0	160.51	2.558					
11,200.0	7,076.0	10,955.3	6,860.0	97.0	96.4	58.42	535.8	3,524.0	410.5	245.8	164.68	2.493					
11,300.0	7,076.0	11,055.3	6,860.0	99.4	98.9	58.42	535.8	3,624.0	410.5	241.7	168.85	2.431					
11,400.0	7,076.0	11,155.3	6,860.0	101.9	101.3	58.42	535.8	3,724.0	410.5	237.5	173.03	2.373					
11,500.0	7,076.0	11,255.3	6,860.0	104.3	103.7	58.42	535.8	3,824.0	410.5	233.3	177.21	2.317					
11,600.0	7,076.0	11,355.3	6,860.0	106.7	106.2	58.42	535.8	3,924.0	410.5	229.1	181.39	2.263					
11,700.0	7,076.0	11,455.3	6,860.0	109.2	108.6	58.42	535.8	4,024.0	410.5	224.9	185.57	2.212					
11,720.7	7,076.0	11,476.0	6,860.0	109.7	109.1	58.42	535.8	4,044.7	410.5	224.1	186.44	2.202					
11,728.1	7,076.0	11,480.7	6,860.0	109.8	109.3	58.42	535.8	4,049.4	410.5	223.8	186.69	2.199 SF					

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - Bohrer 2D-19H-E368 - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-18.2	0.0	18.2					
100.0	100.0	99.0	99.0	0.1	0.1	180.00	-18.2	0.0	18.2	17.9	0.26	69.907		
200.0	200.0	199.0	199.0	0.3	0.3	180.00	-18.2	0.0	18.2	17.6	0.61	29.896		
300.0	300.0	299.0	299.0	0.5	0.5	180.00	-18.2	0.0	18.2	17.3	0.96	19.005 CC, ES		
400.0	400.0	399.0	399.0	0.7	0.7	-139.06	-18.2	0.0	18.9	17.6	1.31	14.425		
500.0	500.0	499.0	499.0	0.8	0.8	-143.75	-18.2	0.0	20.9	19.3	1.66	12.613		
600.0	599.9	599.0	599.0	1.0	1.0	-147.95	-18.0	-0.8	24.2	22.2	2.01	12.040		
700.0	699.7	699.2	699.1	1.2	1.2	-149.71	-17.4	-3.4	28.3	25.9	2.37	11.963 SF		
800.0	799.4	799.3	799.1	1.4	1.4	-149.80	-16.3	-7.6	33.1	30.4	2.73	12.142		
900.0	898.9	899.4	899.1	1.7	1.6	-148.84	-14.9	-13.5	38.7	35.6	3.11	12.458		
1,000.0	998.3	999.5	998.9	1.9	1.8	-147.26	-13.0	-21.1	45.1	41.5	3.51	12.847		
1,100.0	1,097.4	1,099.6	1,098.5	2.2	2.0	-145.37	-10.7	-30.4	52.2	48.2	3.93	13.264		
1,200.0	1,196.3	1,199.6	1,197.8	2.5	2.2	-143.34	-7.9	-41.4	60.1	55.7	4.40	13.680		
1,300.0	1,294.9	1,299.5	1,296.9	2.8	2.5	-141.31	-4.8	-54.0	69.0	64.1	4.90	14.084		
1,400.0	1,393.3	1,398.9	1,395.4	3.1	2.7	-140.16	-1.5	-67.1	79.0	73.6	5.42	14.591		
1,500.0	1,491.4	1,498.4	1,493.9	3.5	3.0	-139.66	1.7	-80.2	89.7	83.8	5.95	15.092		
1,600.0	1,589.6	1,597.8	1,592.4	3.8	3.3	-139.26	5.0	-93.3	100.4	93.9	6.48	15.491		
1,700.0	1,687.8	1,697.2	1,690.9	4.2	3.6	-138.94	8.2	-106.4	111.1	104.1	7.03	15.815		
1,800.0	1,786.0	1,796.6	1,789.4	4.6	3.8	-138.67	11.5	-119.5	121.8	114.2	7.58	16.082		
1,900.0	1,884.1	1,896.1	1,888.0	4.9	4.1	-138.45	14.7	-132.6	132.5	124.4	8.13	16.304		
2,000.0	1,982.3	1,995.5	1,986.5	5.3	4.4	-138.26	18.0	-145.7	143.2	134.5	8.68	16.492		
2,100.0	2,080.5	2,094.9	2,085.0	5.7	4.7	-138.10	21.2	-158.8	153.9	144.7	9.24	16.653		
2,200.0	2,178.7	2,194.3	2,183.5	6.0	5.0	-137.95	24.5	-171.9	164.7	154.8	9.81	16.791		
2,300.0	2,276.8	2,293.8	2,282.0	6.4	5.3	-137.83	27.8	-185.0	175.4	165.0	10.37	16.912		
2,400.0	2,375.0	2,393.2	2,380.5	6.8	5.6	-137.72	31.0	-198.1	186.1	175.1	10.93	17.017		
2,500.0	2,473.2	2,492.6	2,479.0	7.1	5.8	-137.62	34.3	-211.2	196.8	185.3	11.50	17.111		
2,600.0	2,571.4	2,592.0	2,577.5	7.5	6.1	-137.53	37.5	-224.3	207.5	195.4	12.07	17.193		
2,700.0	2,669.5	2,691.5	2,676.0	7.9	6.4	-137.45	40.8	-237.4	218.2	205.6	12.64	17.267		
2,800.0	2,767.7	2,790.9	2,774.5	8.3	6.7	-137.38	44.0	-250.5	228.9	215.7	13.21	17.334		
2,900.0	2,865.9	2,890.3	2,873.0	8.6	7.0	-137.32	47.3	-263.6	239.6	225.9	13.78	17.394		
3,000.0	2,964.1	2,989.7	2,971.5	9.0	7.3	-137.26	50.5	-276.7	250.3	236.0	14.35	17.448		
3,100.0	3,062.3	3,089.2	3,070.0	9.4	7.6	-137.20	53.8	-289.8	261.1	246.1	14.92	17.498		
3,200.0	3,160.4	3,188.6	3,168.5	9.8	7.9	-137.15	57.0	-302.9	271.8	256.3	15.49	17.543		
3,300.0	3,258.6	3,288.0	3,267.0	10.1	8.2	-137.10	60.3	-316.0	282.5	266.4	16.06	17.584		
3,400.0	3,356.8	3,387.4	3,365.5	10.5	8.5	-137.06	63.5	-329.1	293.2	276.6	16.64	17.623		
3,500.0	3,455.0	3,486.9	3,464.0	10.9	8.7	-137.02	66.8	-342.2	303.9	286.7	17.21	17.658		
3,600.0	3,553.1	3,586.3	3,562.5	11.3	9.0	-136.98	70.1	-355.3	314.6	296.8	17.78	17.690		
3,700.0	3,651.3	3,685.7	3,661.0	11.6	9.3	-136.95	73.3	-368.4	325.3	307.0	18.36	17.721		
3,800.0	3,749.5	3,785.1	3,759.5	12.0	9.6	-136.91	76.6	-381.5	336.1	317.1	18.93	17.749		
3,900.0	3,847.7	3,884.5	3,858.0	12.4	9.9	-136.88	79.8	-394.6	346.8	327.3	19.51	17.775		
4,000.0	3,945.8	3,984.0	3,956.5	12.8	10.2	-136.85	83.1	-407.7	357.5	337.4	20.08	17.800		
4,100.0	4,044.0	4,083.4	4,055.0	13.1	10.5	-136.83	86.3	-420.8	368.2	347.5	20.66	17.823		
4,200.0	4,142.2	4,182.8	4,153.5	13.5	10.8	-136.80	89.6	-433.9	378.9	357.7	21.23	17.844		
4,300.0	4,240.4	4,282.2	4,252.0	13.9	11.1	-136.78	92.8	-447.0	389.6	367.8	21.81	17.865		
4,400.0	4,338.5	4,381.7	4,350.5	14.3	11.4	-136.75	96.1	-460.1	400.3	378.0	22.39	17.884		
4,500.0	4,436.7	4,481.1	4,449.1	14.6	11.7	-136.73	99.3	-473.2	411.1	388.1	22.96	17.902		
4,600.0	4,534.9	4,580.5	4,547.6	15.0	12.0	-136.71	102.6	-486.3	421.8	398.2	23.54	17.919		
4,700.0	4,633.1	4,679.9	4,646.1	15.4	12.3	-136.69	105.9	-499.4	432.5	408.4	24.11	17.935		
4,800.0	4,731.2	4,779.4	4,744.6	15.8	12.5	-136.67	109.1	-512.5	443.2	418.5	24.69	17.950		
4,900.0	4,829.4	4,878.8	4,843.1	16.1	12.8	-136.65	112.4	-525.6	453.9	428.6	25.27	17.965		
5,000.0	4,927.6	4,978.2	4,941.6	16.5	13.1	-136.64	115.6	-538.7	464.6	438.8	25.84	17.979		
5,100.0	5,025.8	5,077.6	5,040.1	16.9	13.4	-136.62	118.9	-551.8	475.3	448.9	26.42	17.992		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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												S19-T3N-R68W (Bohrer) - Bohrer 2D-19H-E368 - Hz - Plan #1		Offset Site Error:		0.0 ft	
Survey Program:												0-Geolink MWD		Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning				
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty	Separation Factor						
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis						
5,200.0	5,124.0	5,177.1	5,138.6	17.3	13.7	-136.61	122.1	-564.9	486.1	459.1	27.00	18.004					
5,300.0	5,222.1	5,276.5	5,237.1	17.6	14.0	-136.59	125.4	-578.0	496.8	469.2	27.57	18.016					

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - Bohrer 2E-19H-E368 - 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	180.00	-29.1	0.0	29.2					
100.0	100.0	99.0	99.0	0.1	0.1	180.00	-29.1	0.0	29.1	28.9	0.26	111.861		
200.0	200.0	199.0	199.0	0.3	0.3	180.00	-29.1	0.0	29.1	28.5	0.61	47.837		
300.0	300.0	299.0	299.0	0.5	0.5	180.00	-29.1	0.0	29.1	28.2	0.96	30.410 CC, ES		
400.0	400.0	399.0	399.0	0.7	0.7	-138.40	-29.1	0.0	29.8	28.5	1.31	22.781		
500.0	500.0	499.0	499.0	0.8	0.8	-141.52	-29.1	0.0	31.8	30.1	1.66	19.176		
600.0	599.9	598.9	598.9	1.0	1.0	-145.91	-29.1	0.0	35.3	33.3	2.01	17.573		
700.0	699.7	698.7	698.7	1.2	1.2	-149.52	-29.3	-0.8	40.5	38.1	2.36	17.126 SF		
800.0	799.4	798.5	798.5	1.4	1.4	-151.19	-29.7	-3.4	47.1	44.4	2.72	17.319		
900.0	898.9	898.3	898.2	1.7	1.5	-151.46	-30.4	-7.7	55.1	52.1	3.09	17.868		
1,000.0	998.3	997.9	997.6	1.9	1.7	-150.85	-31.3	-13.6	64.6	61.1	3.47	18.620		
1,100.0	1,097.4	1,097.4	1,096.8	2.2	1.9	-149.72	-32.6	-21.3	75.4	71.5	3.87	19.480		
1,200.0	1,196.3	1,196.7	1,195.6	2.5	2.1	-148.30	-34.1	-30.6	87.6	83.3	4.30	20.386		
1,300.0	1,294.9	1,295.8	1,294.1	2.8	2.4	-146.77	-35.9	-41.7	101.3	96.6	4.76	21.291		
1,400.0	1,393.3	1,394.6	1,392.0	3.1	2.6	-145.22	-37.9	-54.3	116.5	111.2	5.26	22.164		
1,500.0	1,491.4	1,493.3	1,489.7	3.5	2.9	-143.76	-40.2	-68.1	132.4	126.7	5.78	22.905		
1,600.0	1,589.6	1,591.9	1,587.4	3.8	3.2	-142.59	-42.4	-82.0	148.4	142.1	6.32	23.486		
1,700.0	1,687.8	1,690.6	1,685.0	4.2	3.4	-141.65	-44.6	-95.9	164.5	157.6	6.87	23.950		
1,800.0	1,786.0	1,789.3	1,782.7	4.6	3.7	-140.88	-46.9	-109.8	180.6	173.1	7.42	24.327		
1,900.0	1,884.1	1,887.9	1,880.4	4.9	4.0	-140.24	-49.1	-123.6	196.7	188.7	7.98	24.636		
2,000.0	1,982.3	1,986.6	1,978.0	5.3	4.3	-139.69	-51.4	-137.5	212.8	204.3	8.55	24.894		
2,100.0	2,080.5	2,085.3	2,075.7	5.7	4.6	-139.22	-53.6	-151.4	229.0	219.8	9.12	25.112		
2,200.0	2,178.7	2,184.0	2,173.4	6.0	4.9	-138.81	-55.9	-165.3	245.1	235.4	9.69	25.297		
2,300.0	2,276.8	2,282.6	2,271.0	6.4	5.1	-138.45	-58.1	-179.1	261.3	251.0	10.26	25.457		
2,400.0	2,375.0	2,381.3	2,368.7	6.8	5.4	-138.13	-60.4	-193.0	277.5	266.6	10.84	25.595		
2,500.0	2,473.2	2,480.0	2,466.4	7.1	5.7	-137.85	-62.6	-206.9	293.6	282.2	11.42	25.716		
2,600.0	2,571.4	2,578.6	2,564.0	7.5	6.0	-137.60	-64.8	-220.8	309.8	297.8	12.00	25.823		
2,700.0	2,669.5	2,677.3	2,661.7	7.9	6.3	-137.37	-67.1	-234.7	326.0	313.5	12.58	25.917		
2,800.0	2,767.7	2,776.0	2,759.4	8.3	6.6	-137.17	-69.3	-248.5	342.2	329.1	13.16	26.001		
2,900.0	2,865.9	2,874.7	2,857.0	8.6	6.9	-136.98	-71.6	-262.4	358.4	344.7	13.75	26.077		
3,000.0	2,964.1	2,973.3	2,954.7	9.0	7.2	-136.81	-73.8	-276.3	374.7	360.3	14.33	26.145		
3,100.0	3,062.3	3,072.0	3,052.4	9.4	7.5	-136.65	-76.1	-290.2	390.9	376.0	14.91	26.206		
3,200.0	3,160.4	3,170.7	3,150.0	9.8	7.8	-136.51	-78.3	-304.0	407.1	391.6	15.50	26.262		
3,300.0	3,258.6	3,269.3	3,247.7	10.1	8.1	-136.38	-80.6	-317.9	423.3	407.2	16.09	26.313		
3,400.0	3,356.8	3,368.0	3,345.4	10.5	8.4	-136.25	-82.8	-331.8	439.5	422.8	16.67	26.360		
3,500.0	3,455.0	3,466.7	3,443.0	10.9	8.7	-136.14	-85.1	-345.7	455.7	438.5	17.26	26.403		
3,600.0	3,553.1	3,565.4	3,540.7	11.3	9.0	-136.03	-87.3	-359.6	472.0	454.1	17.85	26.442		
3,700.0	3,651.3	3,664.0	3,638.3	11.6	9.3	-135.93	-89.5	-373.4	488.2	469.8	18.44	26.478		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - Bohrer 2F-19H-E368 - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-40.1	0.0	40.1					
100.0	100.0	99.0	99.0	0.1	0.1	180.00	-40.1	0.0	40.1	39.8	0.26	153.814		
200.0	200.0	199.0	199.0	0.3	0.3	180.00	-40.1	0.0	40.1	39.5	0.61	65.779		
300.0	300.0	299.0	299.0	0.5	0.5	180.00	-40.1	0.0	40.1	39.1	0.96	41.816	CC, ES	
400.0	400.0	399.0	399.0	0.7	0.7	-138.09	-40.1	0.0	40.7	39.4	1.31	31.138		
500.0	500.0	499.0	499.0	0.8	0.8	-140.43	-40.1	0.0	42.7	41.0	1.66	25.753		
600.0	599.9	598.5	598.5	1.0	1.0	-142.88	-40.5	-0.7	46.5	44.5	2.01	23.125		
700.0	699.7	698.0	698.0	1.2	1.2	-144.29	-41.8	-3.0	52.4	50.1	2.37	22.147		
800.0	799.4	797.3	797.2	1.4	1.4	-144.80	-43.9	-6.7	60.5	57.7	2.73	22.124	SF	
900.0	898.9	896.4	896.1	1.7	1.6	-144.68	-46.9	-11.9	70.6	67.5	3.11	22.678		
1,000.0	998.3	995.1	994.5	1.9	1.8	-144.16	-50.7	-18.6	82.7	79.2	3.51	23.585		
1,100.0	1,097.4	1,093.5	1,092.5	2.2	2.0	-143.42	-55.3	-26.7	97.0	93.0	3.93	24.700		
1,200.0	1,196.3	1,191.4	1,189.8	2.5	2.2	-142.58	-60.7	-36.2	113.3	108.9	4.37	25.926		
1,300.0	1,294.9	1,288.9	1,286.4	2.8	2.5	-141.71	-66.9	-47.1	131.6	126.8	4.84	27.196		
1,400.0	1,393.3	1,385.7	1,382.2	3.1	2.7	-140.86	-73.9	-59.3	152.1	146.7	5.34	28.476		
1,500.0	1,491.4	1,483.4	1,478.7	3.5	3.0	-140.23	-81.4	-72.4	173.5	167.6	5.86	29.599		
1,600.0	1,589.6	1,581.1	1,575.2	3.8	3.3	-139.74	-88.8	-85.4	194.9	188.5	6.39	30.502		
1,700.0	1,687.8	1,678.7	1,671.7	4.2	3.6	-139.34	-96.3	-98.5	216.3	209.4	6.92	31.238		
1,800.0	1,786.0	1,776.4	1,768.2	4.6	3.9	-139.01	-103.7	-111.5	237.8	230.3	7.47	31.848		
1,900.0	1,884.1	1,874.1	1,864.7	4.9	4.2	-138.74	-111.2	-124.6	259.2	251.2	8.01	32.359		
2,000.0	1,982.3	1,971.7	1,961.2	5.3	4.5	-138.51	-118.6	-137.6	280.7	272.1	8.56	32.792		
2,100.0	2,080.5	2,069.4	2,057.7	5.7	4.8	-138.32	-126.1	-150.7	302.1	293.0	9.11	33.163		
2,200.0	2,178.7	2,167.1	2,154.3	6.0	5.1	-138.15	-133.5	-163.7	323.6	313.9	9.66	33.485		
2,300.0	2,276.8	2,264.7	2,250.8	6.4	5.4	-138.00	-141.0	-176.8	345.0	334.8	10.22	33.765		
2,400.0	2,375.0	2,362.4	2,347.3	6.8	5.7	-137.87	-148.4	-189.8	366.5	355.7	10.78	34.012		
2,500.0	2,473.2	2,460.1	2,443.8	7.1	6.0	-137.75	-155.8	-202.9	387.9	376.6	11.33	34.230		
2,600.0	2,571.4	2,557.7	2,540.3	7.5	6.3	-137.64	-163.3	-215.9	409.4	397.5	11.89	34.425		
2,700.0	2,669.5	2,655.4	2,636.8	7.9	6.6	-137.55	-170.7	-229.0	430.9	418.4	12.45	34.599		
2,800.0	2,767.7	2,753.1	2,733.3	8.3	6.9	-137.46	-178.2	-242.0	452.3	439.3	13.01	34.756		
2,900.0	2,865.9	2,850.7	2,829.8	8.6	7.2	-137.38	-185.6	-255.1	473.8	460.2	13.58	34.898		
3,000.0	2,964.1	2,948.4	2,926.3	9.0	7.5	-137.31	-193.1	-268.1	495.3	481.1	14.14	35.027		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - Bohrer 2G-19H-E368 - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty	Separation			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-47.4	0.0	47.4					
100.0	100.0	99.0	99.0	0.1	0.1	180.00	-47.4	0.0	47.4	47.1	0.26	181.783		
200.0	200.0	199.0	199.0	0.3	0.3	180.00	-47.4	0.0	47.4	46.7	0.61	77.740		
300.0	300.0	299.0	299.0	0.5	0.5	180.00	-47.4	0.0	47.4	46.4	0.96	49.419	CC, ES	
400.0	400.0	399.0	399.0	0.7	0.7	-137.97	-47.4	0.0	48.0	46.7	1.31	36.710		
500.0	500.0	498.4	498.4	0.8	0.8	-139.23	-47.9	-0.6	50.5	48.9	1.66	30.497		
600.0	599.9	597.6	597.6	1.0	1.0	-140.17	-49.7	-2.4	55.6	53.6	2.01	27.648		
700.0	699.7	696.7	696.5	1.2	1.2	-140.75	-52.7	-5.5	63.2	60.8	2.37	26.629	SF	
800.0	799.4	795.4	795.1	1.4	1.4	-141.01	-56.9	-9.7	73.2	70.5	2.74	26.688		
900.0	898.9	893.7	893.1	1.7	1.6	-141.03	-62.3	-15.1	85.7	82.6	3.13	27.407		
1,000.0	998.3	991.6	990.5	1.9	1.8	-140.90	-68.8	-21.7	100.6	97.1	3.53	28.536		
1,100.0	1,097.4	1,088.8	1,087.2	2.2	2.0	-140.69	-76.4	-29.4	118.0	114.1	3.95	29.912		
1,200.0	1,196.3	1,185.4	1,183.0	2.5	2.3	-140.41	-85.1	-38.3	137.8	133.4	4.38	31.427		
1,300.0	1,294.9	1,281.3	1,277.8	2.8	2.6	-140.12	-94.9	-48.2	160.0	155.1	4.85	33.007		
1,400.0	1,393.3	1,376.4	1,371.7	3.1	2.9	-139.81	-105.6	-59.1	184.5	179.2	5.33	34.602		
1,500.0	1,491.4	1,470.7	1,464.5	3.5	3.2	-139.51	-117.4	-71.0	210.7	204.9	5.84	36.072		
1,600.0	1,589.6	1,565.9	1,557.9	3.8	3.5	-139.03	-130.2	-84.0	237.8	231.5	6.37	37.360		
1,700.0	1,687.8	1,662.1	1,652.3	4.2	3.8	-138.61	-143.3	-97.2	265.0	258.1	6.90	38.413		
1,800.0	1,786.0	1,758.3	1,746.7	4.6	4.2	-138.27	-156.3	-110.4	292.3	284.8	7.44	39.290		
1,900.0	1,884.1	1,854.5	1,841.1	4.9	4.5	-137.99	-169.4	-123.7	319.5	311.5	7.98	40.029		
2,000.0	1,982.3	1,950.7	1,935.5	5.3	4.9	-137.75	-182.4	-136.9	346.7	338.2	8.53	40.658		
2,100.0	2,080.5	2,046.9	2,029.9	5.7	5.2	-137.55	-195.4	-150.1	374.0	364.9	9.08	41.200		
2,200.0	2,178.7	2,143.2	2,124.3	6.0	5.6	-137.37	-208.5	-163.3	401.2	391.6	9.63	41.671		
2,300.0	2,276.8	2,239.4	2,218.7	6.4	6.0	-137.22	-221.5	-176.6	428.5	418.3	10.18	42.084		
2,400.0	2,375.0	2,335.6	2,313.1	6.8	6.3	-137.08	-234.6	-189.8	455.8	445.0	10.74	42.448		
2,500.0	2,473.2	2,431.8	2,407.5	7.1	6.7	-136.96	-247.6	-203.0	483.0	471.7	11.29	42.771		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bohrer 2B-19H-E368
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5085.0ft (Original Well Elev)
Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - Bohrer 2H-19H-E368 - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-58.3	0.0	58.3					
100.0	100.0	98.0	98.0	0.1	0.1	180.00	-58.3	0.0	58.3	58.0	0.26	224.867		
200.0	200.0	198.0	198.0	0.3	0.3	180.00	-58.3	0.0	58.3	57.7	0.61	95.956		
300.0	300.0	298.0	298.0	0.5	0.5	180.00	-58.3	0.0	58.3	57.3	0.96	60.936	CC, ES	
400.0	400.0	397.2	397.2	0.7	0.7	-137.36	-59.0	-0.5	59.6	58.3	1.30	45.683		
500.0	500.0	496.2	496.2	0.8	0.8	-137.57	-61.0	-2.0	63.6	61.9	1.66	38.425		
600.0	599.9	595.1	595.0	1.0	1.0	-137.87	-64.4	-4.4	70.3	68.3	2.01	34.955		
700.0	699.7	693.6	693.3	1.2	1.2	-138.18	-69.3	-7.9	79.6	77.3	2.37	33.552		
800.0	799.4	791.7	791.1	1.4	1.4	-138.48	-75.4	-12.3	91.7	88.9	2.75	33.371	SF	
900.0	898.9	889.3	888.2	1.7	1.6	-138.74	-82.9	-17.7	106.3	103.2	3.13	33.949		
1,000.0	998.3	986.2	984.6	1.9	1.9	-138.95	-91.6	-24.0	123.6	120.1	3.53	35.005		
1,100.0	1,097.4	1,082.5	1,080.0	2.2	2.1	-139.11	-101.6	-31.2	143.5	139.6	3.95	36.360		
1,200.0	1,196.3	1,177.9	1,174.5	2.5	2.4	-139.22	-112.8	-39.2	166.0	161.6	4.38	37.894		
1,300.0	1,294.9	1,272.4	1,267.7	2.8	2.7	-139.29	-125.1	-48.1	191.0	186.2	4.83	39.526		
1,400.0	1,393.3	1,365.9	1,359.8	3.1	3.0	-139.33	-138.5	-57.7	218.6	213.3	5.30	41.202		
1,500.0	1,491.4	1,458.6	1,450.7	3.5	3.3	-139.40	-153.0	-68.2	247.9	242.1	5.80	42.776		
1,600.0	1,589.6	1,550.5	1,540.6	3.8	3.7	-139.25	-168.6	-79.4	278.4	272.1	6.30	44.206		
1,700.0	1,687.8	1,643.5	1,631.2	4.2	4.1	-138.96	-185.4	-91.5	310.0	303.2	6.81	45.497		
1,800.0	1,786.0	1,738.3	1,723.6	4.6	4.5	-138.70	-202.7	-103.9	341.8	334.5	7.34	46.568		
1,900.0	1,884.1	1,833.1	1,816.0	4.9	4.9	-138.48	-220.0	-116.4	373.6	365.7	7.87	47.474		
2,000.0	1,982.3	1,927.9	1,908.4	5.3	5.3	-138.30	-237.3	-128.8	405.4	397.0	8.40	48.248		
2,100.0	2,080.5	2,022.7	2,000.7	5.7	5.6	-138.14	-254.6	-141.3	437.2	428.2	8.94	48.917		
2,200.0	2,178.7	2,117.5	2,093.1	6.0	6.0	-138.01	-271.9	-153.7	468.9	459.5	9.47	49.499		

Cathedral Energy Services

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Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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												S19-T3N-R68W (Bohrer) - Bohrer 2I-19H-E368 - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-69.2	0.0	69.2								
100.0	100.0	98.0	98.0	0.1	0.1	180.00	-69.2	0.0	69.2	69.0	0.26	267.033					
200.0	200.0	198.0	198.0	0.3	0.3	180.00	-69.2	0.0	69.2	68.6	0.61	113.949	CC, ES				
300.0	300.0	297.0	297.0	0.5	0.5	-179.68	-69.9	-0.4	69.9	69.0	0.95	73.256					
400.0	400.0	395.8	395.8	0.7	0.7	-136.43	-72.1	-1.6	72.8	71.5	1.30	55.873					
500.0	500.0	494.5	494.4	0.8	0.8	-136.24	-75.8	-3.7	78.5	76.8	1.65	47.436					
600.0	599.9	592.9	592.6	1.0	1.0	-136.32	-81.0	-6.5	86.9	84.9	2.01	43.228					
700.0	699.7	690.9	690.3	1.2	1.2	-136.59	-87.6	-10.2	98.1	95.8	2.37	41.326					
800.0	799.4	788.3	787.3	1.4	1.5	-136.96	-95.6	-14.6	112.1	109.4	2.75	40.793	SF				
900.0	898.9	885.1	883.5	1.7	1.7	-137.37	-105.0	-19.8	128.8	125.7	3.13	41.116					
1,000.0	998.3	981.2	978.8	1.9	2.0	-137.78	-115.8	-25.7	148.2	144.7	3.53	41.985					
1,100.0	1,097.4	1,076.4	1,073.0	2.2	2.3	-138.15	-127.8	-32.3	170.3	166.4	3.94	43.207					
1,200.0	1,196.3	1,170.7	1,166.1	2.5	2.6	-138.49	-141.0	-39.6	195.1	190.7	4.37	44.650					
1,300.0	1,294.9	1,264.0	1,257.9	2.8	2.9	-138.77	-155.5	-47.6	222.5	217.7	4.81	46.228					
1,400.0	1,393.3	1,356.1	1,348.3	3.1	3.2	-139.02	-171.0	-56.1	252.5	247.2	5.27	47.879					
1,500.0	1,491.4	1,447.3	1,437.4	3.5	3.6	-139.31	-187.6	-65.3	284.3	278.6	5.75	49.450					
1,600.0	1,589.6	1,537.6	1,525.5	3.8	3.9	-139.40	-205.3	-75.1	317.5	311.2	6.24	50.910					
1,700.0	1,687.8	1,627.1	1,612.4	4.2	4.3	-139.34	-224.0	-85.4	351.9	345.1	6.73	52.278					
1,800.0	1,786.0	1,715.7	1,698.1	4.6	4.8	-139.17	-243.7	-96.3	387.5	380.3	7.23	53.574					
1,900.0	1,884.1	1,803.4	1,782.5	4.9	5.2	-138.93	-264.4	-107.7	424.3	416.6	7.74	54.812					
2,000.0	1,982.3	1,893.2	1,868.7	5.3	5.6	-138.64	-286.5	-119.9	462.2	454.0	8.26	55.946					

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Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 S19-T3N-R68W (Bohrer) - BOHRER TRUST 21-19 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 75-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		
8,400.0	7,076.0	7,335.2	7,098.9	31.6	28.6	92.70	655.2	1,137.5	473.5	417.0	56.48	8.383		
8,500.0	7,076.0	7,332.6	7,096.4	33.7	28.6	92.08	655.2	1,137.6	389.2	330.5	58.69	6.632		
8,600.0	7,076.0	7,330.1	7,093.8	35.8	28.6	91.45	655.2	1,137.6	314.2	253.3	60.93	5.158		
8,700.0	7,076.0	7,327.6	7,091.3	38.0	28.6	90.81	655.1	1,137.7	257.0	193.8	63.19	4.066		
8,800.0	7,076.0	7,325.0	7,088.7	40.2	28.6	90.18	655.1	1,137.7	230.8	165.3	65.48	3.525		
8,813.7	7,076.0	7,324.7	7,088.4	40.5	28.6	90.09	655.1	1,137.8	230.4	164.6	65.80	3.502 CC, ES, SF		
8,900.0	7,076.0	7,322.4	7,086.1	42.4	28.6	89.54	655.1	1,137.8	246.0	178.2	67.78	3.629		
9,000.0	7,076.0	7,319.9	7,083.6	44.7	28.6	88.90	655.1	1,137.9	296.2	226.1	70.10	4.226		
9,100.0	7,076.0	7,317.3	7,081.0	47.0	28.6	88.25	655.1	1,137.9	367.4	295.0	72.42	5.073		
9,200.0	7,076.0	7,314.7	7,078.4	49.3	28.6	87.61	655.1	1,138.0	449.6	374.9	74.74	6.016		

Cathedral Energy Services

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Reference Site:	S19-T3N-R68W (Bohrer)	MD Reference:	WELL @ 5085.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bohrer 2B-19H-E368	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 @ 5085.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Bohrer 2B-19H-E368
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.29°

