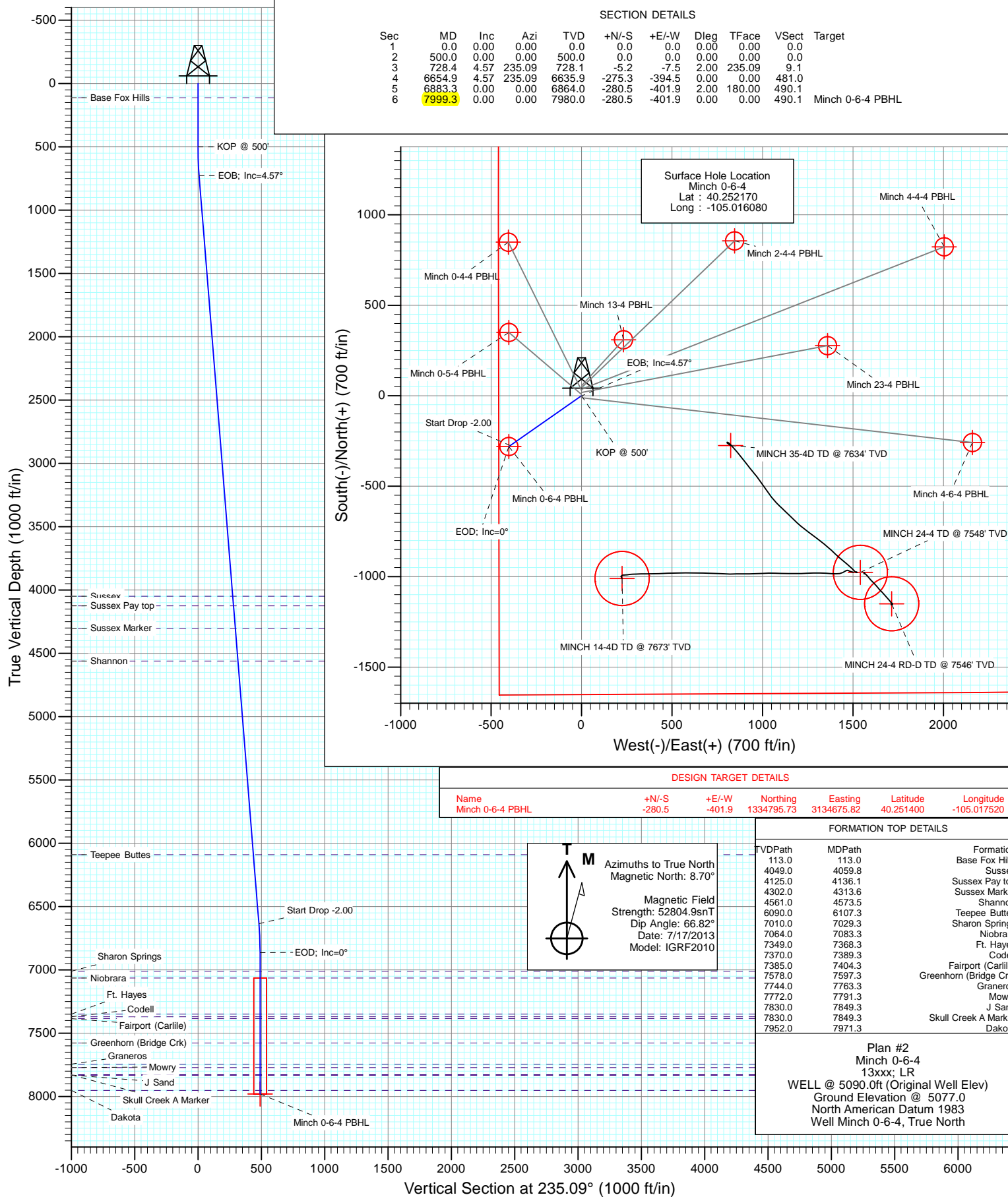




Project: DJ Wattenberg  
Site: S4-T3N-R68W (Minch)  
Well: Minch 0-6-4  
Wellbore: DD  
Design: Plan #2



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site:</b>	S4-T3N-R68W (Minch)	<b>North Reference:</b>	True
<b>Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

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

Site		S4-T3N-R68W (Minch)			
Site Position:		Northing:	1,334,165.55 ft	Latitude:	40.249600
From:	Lat/Long	Easting:	3,139,290.53 ft	Longitude:	-105.001000
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.32 °

Well	Minch 0-6-4					
Well Position	+N/-S	0.0 ft	Northing:	1,335,078.41 ft	Latitude:	40.252170
	+E/-W	0.0 ft	Easting:	3,135,076.22 ft	Longitude:	-105.016080
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,077.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	7/17/2013	8.70	66.82	52,805

<b>Design</b>	Plan #2				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN		<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	235.09	

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
728.4	4.57	235.09	728.1	-5.2	-7.5	2.00	2.00	0.00	235.09	
6,654.9	4.57	235.09	6,635.9	-275.3	-394.5	0.00	0.00	0.00	0.00	
6,883.3	0.00	0.00	6,864.0	-280.5	-401.9	2.00	-2.00	0.00	180.00	
7,999.3	0.00	0.00	7,980.0	-280.5	-401.9	0.00	0.00	0.00	0.00	Minch 0-6-4 PBHL

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site:</b>	S4-T3N-R68W (Minch)	<b>North Reference:</b>	True
<b>Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

## Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
113.0	0.00	0.00	113.0	0.0	0.0	0.0	0.00	0.00	Base Fox Hills
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	KOP @ 500'
600.0	2.00	235.09	600.0	-1.0	-1.4	1.7	2.00	2.00	
700.0	4.00	235.09	699.8	-4.0	-5.7	7.0	2.00	2.00	
728.4	4.57	235.09	728.1	-5.2	-7.5	9.1	2.00	2.00	EOB; Inc=4.57°
800.0	4.57	235.09	799.5	-8.5	-12.1	14.8	0.00	0.00	
900.0	4.57	235.09	899.2	-13.0	-18.7	22.8	0.00	0.00	
1,000.0	4.57	235.09	998.9	-17.6	-25.2	30.7	0.00	0.00	
1,100.0	4.57	235.09	1,098.6	-22.1	-31.7	38.7	0.00	0.00	
1,200.0	4.57	235.09	1,198.3	-26.7	-38.3	46.7	0.00	0.00	
1,300.0	4.57	235.09	1,297.9	-31.3	-44.8	54.6	0.00	0.00	
1,400.0	4.57	235.09	1,397.6	-35.8	-51.3	62.6	0.00	0.00	
1,500.0	4.57	235.09	1,497.3	-40.4	-57.8	70.5	0.00	0.00	
1,600.0	4.57	235.09	1,597.0	-44.9	-64.4	78.5	0.00	0.00	
1,700.0	4.57	235.09	1,696.7	-49.5	-70.9	86.5	0.00	0.00	
1,800.0	4.57	235.09	1,796.4	-54.0	-77.4	94.4	0.00	0.00	
1,900.0	4.57	235.09	1,896.0	-58.6	-84.0	102.4	0.00	0.00	
2,000.0	4.57	235.09	1,995.7	-63.2	-90.5	110.4	0.00	0.00	
2,100.0	4.57	235.09	2,095.4	-67.7	-97.0	118.3	0.00	0.00	
2,200.0	4.57	235.09	2,195.1	-72.3	-103.6	126.3	0.00	0.00	
2,300.0	4.57	235.09	2,294.8	-76.8	-110.1	134.2	0.00	0.00	
2,400.0	4.57	235.09	2,394.4	-81.4	-116.6	142.2	0.00	0.00	
2,500.0	4.57	235.09	2,494.1	-85.9	-123.2	150.2	0.00	0.00	
2,600.0	4.57	235.09	2,593.8	-90.5	-129.7	158.1	0.00	0.00	
2,700.0	4.57	235.09	2,693.5	-95.1	-136.2	166.1	0.00	0.00	
2,800.0	4.57	235.09	2,793.2	-99.6	-142.7	174.1	0.00	0.00	
2,900.0	4.57	235.09	2,892.9	-104.2	-149.3	182.0	0.00	0.00	
3,000.0	4.57	235.09	2,992.5	-108.7	-155.8	190.0	0.00	0.00	
3,100.0	4.57	235.09	3,092.2	-113.3	-162.3	198.0	0.00	0.00	
3,200.0	4.57	235.09	3,191.9	-117.8	-168.9	205.9	0.00	0.00	
3,300.0	4.57	235.09	3,291.6	-122.4	-175.4	213.9	0.00	0.00	
3,400.0	4.57	235.09	3,391.3	-127.0	-181.9	221.8	0.00	0.00	
3,500.0	4.57	235.09	3,491.0	-131.5	-188.5	229.8	0.00	0.00	
3,600.0	4.57	235.09	3,590.6	-136.1	-195.0	237.8	0.00	0.00	
3,700.0	4.57	235.09	3,690.3	-140.6	-201.5	245.7	0.00	0.00	
3,800.0	4.57	235.09	3,790.0	-145.2	-208.0	253.7	0.00	0.00	
3,900.0	4.57	235.09	3,889.7	-149.7	-214.6	261.7	0.00	0.00	
4,000.0	4.57	235.09	3,989.4	-154.3	-221.1	269.6	0.00	0.00	
4,059.8	4.57	235.09	4,049.0	-157.0	-225.0	274.4	0.00	0.00	Sussex
4,100.0	4.57	235.09	4,089.1	-158.9	-227.6	277.6	0.00	0.00	
4,136.1	4.57	235.09	4,125.0	-160.5	-230.0	280.5	0.00	0.00	Sussex Pay top
4,200.0	4.57	235.09	4,188.7	-163.4	-234.2	285.5	0.00	0.00	
4,300.0	4.57	235.09	4,288.4	-168.0	-240.7	293.5	0.00	0.00	
4,313.6	4.57	235.09	4,302.0	-168.6	-241.6	294.6	0.00	0.00	Sussex Marker
4,400.0	4.57	235.09	4,388.1	-172.5	-247.2	301.5	0.00	0.00	
4,500.0	4.57	235.09	4,487.8	-177.1	-253.8	309.4	0.00	0.00	
4,573.5	4.57	235.09	4,561.0	-180.4	-258.6	315.3	0.00	0.00	Shannon

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site:</b>	S4-T3N-R68W (Minch)	<b>North Reference:</b>	True
<b>Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,600.0	4.57	235.09	4,587.5	-181.6	-260.3	317.4	0.00	0.00	
4,700.0	4.57	235.09	4,687.1	-186.2	-266.8	325.4	0.00	0.00	
4,800.0	4.57	235.09	4,786.8	-190.8	-273.3	333.3	0.00	0.00	
4,900.0	4.57	235.09	4,886.5	-195.3	-279.9	341.3	0.00	0.00	
5,000.0	4.57	235.09	4,986.2	-199.9	-286.4	349.2	0.00	0.00	
5,100.0	4.57	235.09	5,085.9	-204.4	-292.9	357.2	0.00	0.00	
5,200.0	4.57	235.09	5,185.6	-209.0	-299.5	365.2	0.00	0.00	
5,300.0	4.57	235.09	5,285.2	-213.5	-306.0	373.1	0.00	0.00	
5,400.0	4.57	235.09	5,384.9	-218.1	-312.5	381.1	0.00	0.00	
5,500.0	4.57	235.09	5,484.6	-222.7	-319.1	389.1	0.00	0.00	
5,600.0	4.57	235.09	5,584.3	-227.2	-325.6	397.0	0.00	0.00	
5,700.0	4.57	235.09	5,684.0	-231.8	-332.1	405.0	0.00	0.00	
5,800.0	4.57	235.09	5,783.7	-236.3	-338.6	413.0	0.00	0.00	
5,900.0	4.57	235.09	5,883.3	-240.9	-345.2	420.9	0.00	0.00	
6,000.0	4.57	235.09	5,983.0	-245.4	-351.7	428.9	0.00	0.00	
6,100.0	4.57	235.09	6,082.7	-250.0	-358.2	436.8	0.00	0.00	
6,107.3	4.57	235.09	6,090.0	-250.3	-358.7	437.4	0.00	0.00	Teepee Buttes
6,200.0	4.57	235.09	6,182.4	-254.6	-364.8	444.8	0.00	0.00	
6,300.0	4.57	235.09	6,282.1	-259.1	-371.3	452.8	0.00	0.00	
6,400.0	4.57	235.09	6,381.7	-263.7	-377.8	460.7	0.00	0.00	
6,500.0	4.57	235.09	6,481.4	-268.2	-384.4	468.7	0.00	0.00	
6,600.0	4.57	235.09	6,581.1	-272.8	-390.9	476.7	0.00	0.00	
6,654.9	4.57	235.09	6,635.9	-275.3	-394.5	481.0	0.00	0.00	Start Drop -2.00
6,700.0	3.67	235.09	6,680.8	-277.1	-397.1	484.3	2.00	-2.00	
6,800.0	1.67	235.09	6,780.7	-279.8	-400.9	488.9	2.00	-2.00	
6,883.3	0.00	0.00	6,864.0	-280.5	-401.9	490.1	2.00	-2.00	EOD; Inc=0°
6,900.0	0.00	0.00	6,880.7	-280.5	-401.9	490.1	0.00	0.00	
7,000.0	0.00	0.00	6,980.7	-280.5	-401.9	490.1	0.00	0.00	
7,029.3	0.00	0.00	7,010.0	-280.5	-401.9	490.1	0.00	0.00	Sharon Springs
7,083.3	0.00	0.00	7,064.0	-280.5	-401.9	490.1	0.00	0.00	Niobrara
7,100.0	0.00	0.00	7,080.7	-280.5	-401.9	490.1	0.00	0.00	
7,200.0	0.00	0.00	7,180.7	-280.5	-401.9	490.1	0.00	0.00	
7,300.0	0.00	0.00	7,280.7	-280.5	-401.9	490.1	0.00	0.00	
7,368.3	0.00	0.00	7,349.0	-280.5	-401.9	490.1	0.00	0.00	Ft. Hayes
7,389.3	0.00	0.00	7,370.0	-280.5	-401.9	490.1	0.00	0.00	Codell
7,400.0	0.00	0.00	7,380.7	-280.5	-401.9	490.1	0.00	0.00	
7,404.3	0.00	0.00	7,385.0	-280.5	-401.9	490.1	0.00	0.00	Fairport (Carlile)
7,500.0	0.00	0.00	7,480.7	-280.5	-401.9	490.1	0.00	0.00	
7,597.3	0.00	0.00	7,578.0	-280.5	-401.9	490.1	0.00	0.00	Greenhorn (Bridge Crk)
7,600.0	0.00	0.00	7,580.7	-280.5	-401.9	490.1	0.00	0.00	
7,700.0	0.00	0.00	7,680.7	-280.5	-401.9	490.1	0.00	0.00	
7,763.3	0.00	0.00	7,744.0	-280.5	-401.9	490.1	0.00	0.00	Graneros
7,791.3	0.00	0.00	7,772.0	-280.5	-401.9	490.1	0.00	0.00	Mowry
7,800.0	0.00	0.00	7,780.7	-280.5	-401.9	490.1	0.00	0.00	
7,849.3	0.00	0.00	7,830.0	-280.5	-401.9	490.1	0.00	0.00	J Sand - Skull Creek A Marker
7,900.0	0.00	0.00	7,880.7	-280.5	-401.9	490.1	0.00	0.00	
7,971.3	0.00	0.00	7,952.0	-280.5	-401.9	490.1	0.00	0.00	Dakota
7,999.3	0.00	0.00	7,980.0	-280.5	-401.9	490.1	0.00	0.00	TD at 7999.3 - Minch 0-6-4 PBHL

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site:</b>	S4-T3N-R68W (Minch)	<b>North Reference:</b>	True
<b>Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Minch 0-6-4 PBHL	0.00	0.00	7,980.0	-280.5	-401.9	1,334,795.73	3,134,675.82	40.251400	-105.017520
- plan hits target center									
- Circle (radius 50.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
113.0	113.0	Base Fox Hills				
4,059.8	4,049.0	Sussex				
4,136.1	4,125.0	Sussex Pay top				
4,313.6	4,302.0	Sussex Marker				
4,573.5	4,561.0	Shannon				
6,107.3	6,090.0	Teepee Buttes				
7,029.3	7,010.0	Sharon Springs				
7,083.3	7,064.0	Niobrara				
7,368.3	7,349.0	Ft. Hayes				
7,389.3	7,370.0	Codell				
7,404.3	7,385.0	Fairport (Carlile)				
7,597.3	7,578.0	Greenhorn (Bridge Crk)				
7,763.3	7,744.0	Graneros				
7,791.3	7,772.0	Mowry				
7,849.3	7,830.0	Skull Creek A Marker				
7,849.3	7,830.0	J Sand				
7,971.3	7,952.0	Dakota				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
500.0	500.0	0.0	0.0	KOP @ 500'
728.4	728.1	-5.2	-7.5	EOB; Inc=4.57°
6,654.9	6,635.9	-275.3	-394.5	Start Drop -2.00
6,883.3	6,864.0	-280.5	-401.9	EOD; Inc=0°
7,999.3	7,980.0	-280.5	-401.9	TD at 7999.3

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

**DJ Wattenberg**

**S4-T3N-R68W (Minch)**

**Minch 0-6-4**

**DD**

**Plan #2**

## **Anticollision Report**

**22 July, 2013**

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Reference Site:</b>	S4-T3N-R68W (Minch)	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #2		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 500.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	7/22/2013		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	7,998.8	Plan #2 (DD)	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						
S4-T3N-R68W (Minch)						
HOAGLAND 33-4D (EXISTING) - Existing - Existing						Out of range
HOAGLAND 34-4D (EXISTING) - Existing - Existing						Out of range
HOAGLAND 43-4D (EXISTING) - Existing - Existing						Out of range
HOAGLAND 44-4 (EXISTING) - Existing - Existing						Out of range
HOAGLAND 45-4D (EXISTING) - Existing - Existing						Out of range
Minch 0-4-4 - DD - Plan #1	500.0	500.0	29.1	27.4	17.139	CC, ES
Minch 0-4-4 - DD - Plan #1	600.0	599.0	31.7	29.6	15.469	SF
Minch 0-5-4 - DD - Plan #1	500.0	500.0	7.3	5.6	4.281	CC, ES, SF
Minch 13-4 - DD - Plan #1	500.0	500.0	58.3	56.6	34.324	CC, ES
Minch 13-4 - DD - Plan #1	700.0	696.8	68.4	66.0	28.483	SF
MINCH 14-4D (EXISTING) - Existing - Existing						Out of range
Minch 23-4 - DD - Plan #1	500.0	500.0	18.2	16.5	10.710	CC, ES
Minch 23-4 - DD - Plan #1	600.0	599.8	19.8	17.7	9.646	SF
Minch 2-4-4 - DD - Plan #1	500.0	500.0	47.4	45.7	27.902	CC, ES
Minch 2-4-4 - DD - Plan #1	700.0	696.7	57.7	55.3	24.033	SF
MINCH 24-4 (EXISTING) - EXISTING - EXISTING						Out of range
MINCH 24-4 RD-D (EXISTING) - Existing - Existing						Out of range
MINCH 35-4D (EXISTING) - Existing - Existing						Out of range
Minch 4-4-4 - DD - Plan #1	200.0	200.0	36.5	35.9	55.959	CC, ES
Minch 4-4-4 - DD - Plan #1	500.0	497.3	45.5	43.8	25.776	SF
Minch 4-6-4 - DD - Plan #2	590.7	590.6	10.6	8.6	5.247	CC
Minch 4-6-4 - DD - Plan #2	600.0	599.9	10.6	8.6	5.171	ES, SF

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Reference Site:</b>	S4-T3N-R68W (Minch)	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S4-T3N-R68W (Minch) - Minch 0-4-4 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	29.1	0.0	29.1					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	29.1	0.0	29.1	28.8	0.30	95.936		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	29.1	0.0	29.1	28.5	0.65	44.634		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	29.1	0.0	29.1	28.1	1.00	29.082		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	29.1	0.0	29.1	27.8	1.35	21.567		
500.0	500.0	500.0	500.0	0.8	0.8	0.00	29.1	0.0	29.1	27.4	1.70	17.139 CC, ES		
600.0	600.0	599.0	599.0	1.0	1.0	126.06	30.7	-0.8	31.7	29.6	2.05	15.469 SF		
700.0	699.8	697.6	697.5	1.2	1.2	128.60	35.2	-3.0	39.4	37.0	2.40	16.388		
800.0	799.5	795.5	795.0	1.4	1.4	130.52	42.8	-6.7	51.7	49.0	2.77	18.670		
900.0	899.2	892.7	891.4	1.6	1.6	130.25	53.2	-11.9	67.1	63.9	3.15	21.282		
1,000.0	998.9	990.1	987.8	1.8	1.9	129.06	66.2	-18.3	84.8	81.3	3.54	23.961		
1,100.0	1,098.6	1,088.5	1,085.0	2.0	2.2	128.17	79.6	-24.9	102.9	98.9	3.93	26.151		
1,200.0	1,198.3	1,186.8	1,182.2	2.3	2.5	127.55	93.0	-31.5	121.0	116.6	4.33	27.923		
1,300.0	1,297.9	1,285.1	1,279.4	2.5	2.8	127.09	106.4	-38.2	139.1	134.4	4.73	29.383		
1,400.0	1,397.6	1,383.5	1,376.6	2.7	3.1	126.73	119.8	-44.8	157.2	152.1	5.14	30.605		
1,500.0	1,497.3	1,481.8	1,473.8	2.9	3.3	126.45	133.2	-51.4	175.3	169.8	5.54	31.642		
1,600.0	1,597.0	1,580.2	1,571.0	3.1	3.7	126.22	146.7	-58.0	193.4	187.5	5.95	32.532		
1,700.0	1,696.7	1,678.5	1,668.2	3.3	4.0	126.03	160.1	-64.6	211.6	205.2	6.35	33.304		
1,800.0	1,796.4	1,776.8	1,765.4	3.6	4.3	125.87	173.5	-71.3	229.7	222.9	6.76	33.979		
1,900.0	1,896.0	1,875.2	1,862.6	3.8	4.6	125.74	186.9	-77.9	247.8	240.7	7.17	34.575		
2,000.0	1,995.7	1,973.5	1,959.8	4.0	4.9	125.62	200.3	-84.5	265.9	258.4	7.58	35.104		
2,100.0	2,095.4	2,071.9	2,057.0	4.2	5.2	125.52	213.7	-91.1	284.1	276.1	7.98	35.577		
2,200.0	2,195.1	2,170.2	2,154.2	4.4	5.5	125.43	227.1	-97.7	302.2	293.8	8.39	36.002		
2,300.0	2,294.8	2,268.6	2,251.4	4.7	5.8	125.35	240.5	-104.4	320.3	311.5	8.80	36.387		
2,400.0	2,394.4	2,366.9	2,348.6	4.9	6.1	125.28	253.9	-111.0	338.5	329.3	9.21	36.736		
2,500.0	2,494.1	2,465.2	2,445.8	5.1	6.4	125.21	267.3	-117.6	356.6	347.0	9.62	37.055		
2,600.0	2,593.8	2,563.6	2,543.0	5.3	6.7	125.15	280.7	-124.2	374.7	364.7	10.03	37.347		
2,700.0	2,693.5	2,661.9	2,640.2	5.6	7.0	125.10	294.1	-130.8	392.9	382.4	10.44	37.615		
2,800.0	2,793.2	2,760.3	2,737.4	5.8	7.3	125.05	307.6	-137.5	411.0	400.2	10.86	37.862		
2,900.0	2,892.9	2,858.6	2,834.6	6.0	7.6	125.01	321.0	-144.1	429.1	417.9	11.27	38.091		
3,000.0	2,992.5	2,956.9	2,931.8	6.2	8.0	124.97	334.4	-150.7	447.3	435.6	11.68	38.303		
3,100.0	3,092.2	3,055.3	3,029.0	6.4	8.3	124.93	347.8	-157.3	465.4	453.3	12.09	38.501		
3,200.0	3,191.9	3,153.6	3,126.2	6.7	8.6	124.90	361.2	-163.9	483.5	471.0	12.50	38.685		



# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Reference Site:</b>	S4-T3N-R68W (Minch)	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S4-T3N-R68W (Minch) - Minch 0-5-4 - DD - 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	0.00	7.3	0.0	7.3					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	7.3	0.0	7.3	7.0	0.30	23.964		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	7.3	0.0	7.3	6.6	0.65	11.149		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	7.3	0.0	7.3	6.3	1.00	7.264		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	7.3	0.0	7.3	5.9	1.35	5.387		
500.0	500.0	500.0	500.0	0.8	0.8	0.00	7.3	0.0	7.3	5.6	1.70	4.281	CC, ES, SF	
600.0	600.0	599.8	599.8	1.0	1.0	125.52	8.4	-1.3	9.4	7.4	2.05	4.587		
700.0	699.8	699.3	699.1	1.2	1.2	126.33	11.8	-5.3	15.8	13.4	2.41	6.543		
800.0	799.5	798.7	798.2	1.4	1.4	126.51	16.9	-11.3	25.4	22.6	2.79	9.114		
900.0	899.2	898.2	897.4	1.6	1.6	126.51	22.2	-17.5	35.3	32.1	3.18	11.111		
1,000.0	998.9	997.7	996.6	1.8	1.8	126.51	27.5	-23.7	45.2	41.6	3.57	12.653		
1,100.0	1,098.6	1,097.2	1,095.8	2.0	2.0	126.51	32.8	-29.9	55.0	51.1	3.97	13.875		
1,200.0	1,198.3	1,196.8	1,194.9	2.3	2.3	126.51	38.1	-36.1	64.9	60.5	4.37	14.864		
1,300.0	1,297.9	1,296.3	1,294.1	2.5	2.5	126.51	43.4	-42.3	74.8	70.0	4.77	15.680		
1,400.0	1,397.6	1,395.8	1,393.3	2.7	2.7	126.51	48.6	-48.6	84.6	79.4	5.17	16.364		
1,500.0	1,497.3	1,495.3	1,492.5	2.9	2.9	126.51	53.9	-54.8	94.5	88.9	5.58	16.944		
1,600.0	1,597.0	1,594.8	1,591.6	3.1	3.1	126.51	59.2	-61.0	104.3	98.4	5.98	17.443		
1,700.0	1,696.7	1,694.3	1,690.8	3.3	3.3	126.51	64.5	-67.2	114.2	107.8	6.39	17.875		
1,800.0	1,796.4	1,793.8	1,790.0	3.6	3.6	126.51	69.8	-73.4	124.1	117.3	6.80	18.254		
1,900.0	1,896.0	1,893.3	1,889.2	3.8	3.8	126.51	75.1	-79.6	133.9	126.7	7.21	18.589		
2,000.0	1,995.7	1,992.9	1,988.4	4.0	4.0	126.51	80.4	-85.8	143.8	136.2	7.61	18.886		
2,100.0	2,095.4	2,092.4	2,087.5	4.2	4.2	126.51	85.7	-92.0	153.7	145.6	8.02	19.153		
2,200.0	2,195.1	2,191.9	2,186.7	4.4	4.5	126.51	91.0	-98.2	163.5	155.1	8.43	19.392		
2,300.0	2,294.8	2,291.4	2,285.9	4.7	4.7	126.51	96.3	-104.4	173.4	164.6	8.84	19.609		
2,400.0	2,394.4	2,390.9	2,385.1	4.9	4.9	126.51	101.5	-110.6	183.3	174.0	9.25	19.805		
2,500.0	2,494.1	2,490.4	2,484.2	5.1	5.1	126.51	106.8	-116.8	193.1	183.5	9.66	19.985		
2,600.0	2,593.8	2,589.9	2,583.4	5.3	5.3	126.51	112.1	-123.1	203.0	192.9	10.07	20.150		
2,700.0	2,693.5	2,689.4	2,682.6	5.6	5.6	126.51	117.4	-129.3	212.9	202.4	10.49	20.301		
2,800.0	2,793.2	2,789.0	2,781.8	5.8	5.8	126.51	122.7	-135.5	222.7	211.8	10.90	20.440		
2,900.0	2,892.9	2,888.5	2,881.0	6.0	6.0	126.51	128.0	-141.7	232.6	221.3	11.31	20.570		
3,000.0	2,992.5	2,988.0	2,980.1	6.2	6.2	126.51	133.3	-147.9	242.5	230.7	11.72	20.689		
3,100.0	3,092.2	3,087.5	3,079.3	6.4	6.5	126.51	138.6	-154.1	252.3	240.2	12.13	20.801		
3,200.0	3,191.9	3,187.0	3,178.5	6.7	6.7	126.51	143.9	-160.3	262.2	249.6	12.54	20.905		
3,300.0	3,291.6	3,286.5	3,277.7	6.9	6.9	126.51	149.2	-166.5	272.0	259.1	12.95	21.002		
3,400.0	3,391.3	3,386.0	3,376.8	7.1	7.1	126.51	154.4	-172.7	281.9	268.5	13.36	21.094		
3,500.0	3,491.0	3,485.5	3,476.0	7.3	7.4	126.51	159.7	-178.9	291.8	278.0	13.78	21.179		
3,600.0	3,590.6	3,585.0	3,575.2	7.6	7.6	126.51	165.0	-185.1	301.6	287.5	14.19	21.260		
3,700.0	3,690.3	3,684.6	3,674.4	7.8	7.8	126.51	170.3	-191.3	311.5	296.9	14.60	21.336		
3,800.0	3,790.0	3,784.1	3,773.6	8.0	8.0	126.51	175.6	-197.6	321.4	306.4	15.01	21.407		
3,900.0	3,889.7	3,883.6	3,872.7	8.2	8.3	126.51	180.9	-203.8	331.2	315.8	15.42	21.475		
4,000.0	3,989.4	3,983.1	3,971.9	8.4	8.5	126.51	186.2	-210.0	341.1	325.3	15.84	21.539		
4,100.0	4,089.1	4,082.6	4,071.1	8.7	8.7	126.51	191.5	-216.2	351.0	334.7	16.25	21.600		
4,200.0	4,188.7	4,182.1	4,170.3	8.9	8.9	126.51	196.8	-222.4	360.8	344.2	16.66	21.658		
4,300.0	4,288.4	4,281.6	4,269.4	9.1	9.2	126.51	202.0	-228.6	370.7	353.6	17.07	21.713		
4,400.0	4,388.1	4,381.1	4,368.6	9.3	9.4	126.51	207.3	-234.8	380.6	363.1	17.49	21.765		
4,500.0	4,487.8	4,480.7	4,467.8	9.6	9.6	126.51	212.6	-241.0	390.4	372.5	17.90	21.815		
4,600.0	4,587.5	4,580.2	4,567.0	9.8	9.8	126.51	217.9	-247.2	400.3	382.0	18.31	21.862		
4,700.0	4,687.1	4,679.7	4,666.1	10.0	10.0	126.51	223.2	-253.4	410.2	391.4	18.72	21.908		
4,800.0	4,786.8	4,779.2	4,765.3	10.2	10.3	126.51	228.5	-259.6	420.0	400.9	19.13	21.951		
4,900.0	4,886.5	4,878.7	4,864.5	10.4	10.5	126.51	233.8	-265.8	429.9	410.3	19.55	21.993		
5,000.0	4,986.2	4,978.2	4,963.7	10.7	10.7	126.51	239.1	-272.1	439.8	419.8	19.96	22.032		
5,100.0	5,085.9	5,077.7	5,062.9	10.9	10.9	126.51	244.4	-278.3	449.6	429.2	20.37	22.071		

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

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Reference Site:</b>	S4-T3N-R68W (Minch)	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design										S4-T3N-R68W (Minch) - Minch 0-5-4 - DD - 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 +N/-S	+E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)							
5,200.0	5,185.6	5,177.2	5,162.0	11.1	11.2	126.51	249.7	-284.5	459.5	438.7	20.78	22.107					
5,300.0	5,285.2	5,276.8	5,261.2	11.3	11.4	126.51	254.9	-290.7	469.3	448.1	21.20	22.142					
5,400.0	5,384.9	5,376.3	5,360.4	11.6	11.6	126.51	260.2	-296.9	479.2	457.6	21.61	22.176					
5,500.0	5,484.6	5,475.8	5,459.6	11.8	11.8	126.51	265.5	-303.1	489.1	467.1	22.02	22.209					
5,600.0	5,584.3	5,575.3	5,558.7	12.0	12.1	126.51	270.8	-309.3	498.9	476.5	22.43	22.240					

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Reference Site:</b>	S4-T3N-R68W (Minch)	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S4-T3N-R68W (Minch) - Minch 13-4 - DD - 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)				Between Centres (ft)	Between Ellipses (ft)		
0.0	0.0	0.0	0.0	0.0	0.0	2.74	58.3	2.8	58.3						
100.0	100.0	100.0	100.0	0.2	0.2	2.74	58.3	2.8	58.3	58.0	0.30	192.134			
200.0	200.0	200.0	200.0	0.3	0.3	2.74	58.3	2.8	58.3	57.7	0.65	89.388			
300.0	300.0	300.0	300.0	0.5	0.5	2.74	58.3	2.8	58.3	57.3	1.00	58.243			
400.0	400.0	400.0	400.0	0.7	0.7	2.74	58.3	2.8	58.3	57.0	1.35	43.193			
500.0	500.0	500.0	500.0	0.8	0.8	2.74	58.3	2.8	58.3	56.6	1.70	34.324 CC, ES			
600.0	600.0	598.3	598.3	1.0	1.0	129.91	59.5	3.9	60.8	58.7	2.05	29.689			
700.0	699.8	696.8	696.7	1.2	1.2	135.57	63.1	7.1	68.4	66.0	2.40	28.483 SF			
800.0	799.5	795.9	795.6	1.4	1.4	141.56	67.1	10.8	79.0	76.3	2.76	28.686			
900.0	899.2	895.0	894.6	1.6	1.6	146.18	71.1	14.4	90.5	87.4	3.11	29.104			
1,000.0	998.9	994.1	993.6	1.8	1.8	149.74	75.1	18.1	102.4	98.9	3.46	29.584			
1,100.0	1,098.6	1,093.3	1,092.5	2.0	2.0	152.56	79.1	21.7	114.6	110.8	3.81	30.068			
1,200.0	1,198.3	1,192.4	1,191.5	2.3	2.2	154.83	83.1	25.4	127.0	122.9	4.16	30.532			
1,300.0	1,297.9	1,291.5	1,290.4	2.5	2.3	156.69	87.1	29.0	139.6	135.1	4.51	30.966			
1,400.0	1,397.6	1,390.6	1,389.4	2.7	2.5	158.25	91.1	32.6	152.4	147.5	4.86	31.365			
1,500.0	1,497.3	1,489.7	1,488.4	2.9	2.7	159.56	95.1	36.3	165.2	160.0	5.21	31.731			
1,600.0	1,597.0	1,588.8	1,587.3	3.1	2.9	160.69	99.1	39.9	178.0	172.5	5.55	32.066			
1,700.0	1,696.7	1,687.9	1,686.3	3.3	3.1	161.66	103.1	43.6	191.0	185.1	5.90	32.373			
1,800.0	1,796.4	1,787.0	1,785.3	3.6	3.3	162.51	107.1	47.2	204.0	197.7	6.25	32.653			
1,900.0	1,896.0	1,886.1	1,884.2	3.8	3.5	163.26	111.0	50.8	217.0	210.4	6.59	32.910			
2,000.0	1,995.7	1,985.2	1,983.2	4.0	3.7	163.92	115.0	54.5	230.1	223.1	6.94	33.147			
2,100.0	2,095.4	2,084.4	2,082.1	4.2	3.9	164.51	119.0	58.1	243.2	235.9	7.29	33.364			
2,200.0	2,195.1	2,183.5	2,181.1	4.4	4.1	165.04	123.0	61.8	256.3	248.6	7.63	33.565			
2,300.0	2,294.8	2,282.6	2,280.1	4.7	4.3	165.52	127.0	65.4	269.4	261.4	7.98	33.751			
2,400.0	2,394.4	2,381.7	2,379.0	4.9	4.5	165.96	131.0	69.0	282.5	274.2	8.33	33.923			
2,500.0	2,494.1	2,480.8	2,478.0	5.1	4.7	166.36	135.0	72.7	295.7	287.0	8.68	34.083			
2,600.0	2,593.8	2,579.9	2,577.0	5.3	4.9	166.72	139.0	76.3	308.9	299.9	9.02	34.233			
2,700.0	2,693.5	2,679.0	2,675.9	5.6	5.1	167.05	143.0	80.0	322.1	312.7	9.37	34.372			
2,800.0	2,793.2	2,778.1	2,774.9	5.8	5.3	167.36	147.0	83.6	335.3	325.5	9.72	34.502			
2,900.0	2,892.9	2,877.2	2,873.9	6.0	5.5	167.64	151.0	87.2	348.5	338.4	10.06	34.624			
3,000.0	2,992.5	2,976.3	2,972.8	6.2	5.7	167.90	155.0	90.9	361.7	351.3	10.41	34.739			
3,100.0	3,092.2	3,075.5	3,071.8	6.4	5.9	168.15	159.0	94.5	374.9	364.1	10.76	34.847			
3,200.0	3,191.9	3,174.6	3,170.7	6.7	6.1	168.38	163.0	98.2	388.1	377.0	11.11	34.949			
3,300.0	3,291.6	3,273.7	3,269.7	6.9	6.3	168.59	167.0	101.8	401.4	389.9	11.45	35.045			
3,400.0	3,391.3	3,372.8	3,368.7	7.1	6.5	168.79	171.0	105.4	414.6	402.8	11.80	35.135			
3,500.0	3,491.0	3,471.9	3,467.6	7.3	6.7	168.97	175.0	109.1	427.8	415.7	12.15	35.221			
3,600.0	3,590.6	3,571.0	3,566.6	7.6	6.9	169.15	179.0	112.7	441.1	428.6	12.49	35.302			
3,700.0	3,690.3	3,670.1	3,665.6	7.8	7.0	169.31	183.0	116.4	454.3	441.5	12.84	35.379			
3,800.0	3,790.0	3,769.2	3,764.5	8.0	7.2	169.47	187.0	120.0	467.6	454.4	13.19	35.453			
3,900.0	3,889.7	3,868.3	3,863.5	8.2	7.4	169.62	191.0	123.6	480.8	467.3	13.54	35.523			
4,000.0	3,989.4	3,967.4	3,962.4	8.4	7.6	169.76	195.0	127.3	494.1	480.2	13.88	35.589			

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Reference Site:</b>	S4-T3N-R68W (Minch)	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S4-T3N-R68W (Minch) - Minch 23-4 - DD - 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	0.00	18.2	0.0	18.2					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	18.2	0.0	18.2	17.9	0.30	59.950		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	18.2	0.0	18.2	17.6	0.65	27.891		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	18.2	0.0	18.2	17.2	1.00	18.173		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	18.2	0.0	18.2	16.9	1.35	13.477		
500.0	500.0	500.0	500.0	0.8	0.8	0.00	18.2	0.0	18.2	16.5	1.70	10.710 CC, ES		
600.0	600.0	599.8	599.7	1.0	1.0	134.00	18.5	1.7	19.8	17.7	2.05	9.646 SF		
700.0	699.8	698.8	698.7	1.2	1.2	152.79	19.5	6.8	26.6	24.2	2.40	11.077		
800.0	799.5	796.7	796.2	1.4	1.4	167.44	21.1	15.1	40.3	37.6	2.75	14.634		
900.0	899.2	893.4	892.1	1.6	1.6	176.08	23.2	26.5	58.4	55.3	3.10	18.801		
1,000.0	998.9	988.7	986.3	1.8	1.9	-178.48	26.0	40.8	80.1	76.7	3.45	23.213		
1,100.0	1,098.6	1,082.4	1,078.4	2.0	2.2	-174.80	29.2	58.0	105.3	101.5	3.80	27.737		
1,200.0	1,198.3	1,174.5	1,168.3	2.3	2.6	-172.17	33.0	77.6	133.8	129.6	4.14	32.319		
1,300.0	1,297.9	1,269.4	1,260.5	2.5	3.0	-170.23	37.2	99.6	164.1	159.6	4.49	36.578		
1,400.0	1,397.6	1,364.5	1,353.0	2.7	3.4	-168.90	41.3	121.6	194.5	189.7	4.83	40.253		
1,500.0	1,497.3	1,459.7	1,445.5	2.9	3.8	-167.92	45.5	143.6	225.0	219.9	5.18	43.449		
1,600.0	1,597.0	1,554.9	1,538.0	3.1	4.2	-167.18	49.7	165.6	255.6	250.1	5.53	46.252		
1,700.0	1,696.7	1,650.1	1,630.5	3.3	4.6	-166.60	53.9	187.6	286.2	280.3	5.87	48.729		
1,800.0	1,796.4	1,745.2	1,723.0	3.6	5.0	-166.13	58.1	209.6	316.8	310.6	6.22	50.934		
1,900.0	1,896.0	1,840.4	1,815.5	3.8	5.4	-165.74	62.3	231.6	347.4	340.9	6.57	52.909		
2,000.0	1,995.7	1,935.6	1,908.0	4.0	5.9	-165.41	66.5	253.6	378.1	371.1	6.91	54.687		
2,100.0	2,095.4	2,030.7	2,000.5	4.2	6.3	-165.14	70.7	275.6	408.7	401.4	7.26	56.296		
2,200.0	2,195.1	2,125.9	2,093.0	4.4	6.7	-164.90	74.9	297.6	439.4	431.8	7.61	57.760		
2,300.0	2,294.8	2,221.1	2,185.5	4.7	7.1	-164.69	79.0	319.7	470.0	462.1	7.95	59.096		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Reference Site:</b>	S4-T3N-R68W (Minch)	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S4-T3N-R68W (Minch) - Minch 2-4-4 - DD - 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 (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	3.37	47.3	2.8	47.4					
100.0	100.0	100.0	100.0	0.2	0.2	3.37	47.3	2.8	47.4	47.1	0.30	156.184		
200.0	200.0	200.0	200.0	0.3	0.3	3.37	47.3	2.8	47.4	46.8	0.65	72.663		
300.0	300.0	300.0	300.0	0.5	0.5	3.37	47.3	2.8	47.4	46.4	1.00	47.345		
400.0	400.0	400.0	400.0	0.7	0.7	3.37	47.3	2.8	47.4	46.1	1.35	35.111		
500.0	500.0	500.0	500.0	0.8	0.8	3.37	47.3	2.8	47.4	45.7	1.70	27.902 CC, ES		
600.0	600.0	598.7	598.7	1.0	1.0	131.13	48.5	4.0	49.8	47.8	2.05	24.335		
700.0	699.8	696.7	696.5	1.2	1.2	138.12	52.0	7.7	57.7	55.3	2.40	24.033 SF		
800.0	799.5	793.4	792.9	1.4	1.4	145.85	57.7	13.6	71.4	68.6	2.75	25.928		
900.0	899.2	889.0	887.8	1.6	1.6	151.80	65.6	21.8	89.2	86.1	3.10	28.772		
1,000.0	998.9	983.2	980.9	1.8	1.9	156.16	75.5	32.1	110.8	107.3	3.44	32.193		
1,100.0	1,098.6	1,076.2	1,072.3	2.0	2.2	159.37	87.3	44.5	135.9	132.1	3.78	35.988		
1,200.0	1,198.3	1,172.4	1,166.6	2.3	2.5	161.74	100.4	58.1	162.6	158.5	4.12	39.496		
1,300.0	1,297.9	1,268.6	1,261.0	2.5	2.9	163.44	113.5	71.8	189.5	185.1	4.46	42.526		
1,400.0	1,397.6	1,364.8	1,355.3	2.7	3.2	164.71	126.6	85.4	216.5	211.7	4.79	45.155		
1,500.0	1,497.3	1,461.0	1,449.6	2.9	3.6	165.71	139.7	99.1	243.6	238.5	5.13	47.453		
1,600.0	1,597.0	1,557.2	1,543.9	3.1	3.9	166.50	152.8	112.7	270.7	265.3	5.47	49.476		
1,700.0	1,696.7	1,653.3	1,638.2	3.3	4.3	167.15	165.9	126.4	297.9	292.1	5.81	51.269		
1,800.0	1,796.4	1,749.5	1,732.5	3.6	4.6	167.69	179.0	140.0	325.1	319.0	6.15	52.869		
1,900.0	1,896.0	1,845.7	1,826.8	3.8	5.0	168.15	192.1	153.7	352.3	345.8	6.49	54.305		
2,000.0	1,995.7	1,941.9	1,921.1	4.0	5.4	168.54	205.2	167.3	379.6	372.8	6.83	55.600		
2,100.0	2,095.4	2,038.1	2,015.4	4.2	5.7	168.88	218.3	181.0	406.8	399.7	7.17	56.773		
2,200.0	2,195.1	2,134.3	2,109.7	4.4	6.1	169.18	231.4	194.7	434.1	426.6	7.51	57.842		
2,300.0	2,294.8	2,230.5	2,204.0	4.7	6.5	169.44	244.5	208.3	461.4	453.5	7.84	58.818		
2,400.0	2,394.4	2,326.6	2,298.3	4.9	6.8	169.68	257.6	222.0	488.7	480.5	8.18	59.715		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Reference Site:</b>	S4-T3N-R68W (Minch)	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S4-T3N-R68W (Minch) - Minch 4-4-4 - DD - 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	4.38	36.4	2.8	36.5					
100.0	100.0	100.0	100.0	0.2	0.2	4.38	36.4	2.8	36.5	36.2	0.30	120.279		
200.0	200.0	200.0	200.0	0.3	0.3	4.38	36.4	2.8	36.5	35.9	0.65	55.959 CC, ES		
300.0	300.0	299.4	299.4	0.5	0.5	6.77	37.1	4.4	37.3	36.3	1.00	37.179		
400.0	400.0	398.6	398.4	0.7	0.7	13.28	38.9	9.2	40.0	38.7	1.37	29.236		
500.0	500.0	497.3	496.7	0.8	0.9	22.16	42.1	17.1	45.5	43.8	1.77	25.776 SF		
600.0	600.0	595.0	593.8	1.0	1.2	156.74	46.4	28.1	56.2	54.1	2.10	26.737		
700.0	699.8	691.0	688.6	1.2	1.5	165.19	51.8	41.9	74.2	71.7	2.45	30.265		
800.0	799.5	785.0	780.9	1.4	1.8	171.27	58.2	58.2	98.7	95.9	2.79	35.359		
900.0	899.2	877.1	870.9	1.6	2.2	175.38	65.6	76.9	127.0	123.8	3.13	40.607		
1,000.0	998.9	967.4	958.3	1.8	2.6	178.27	73.8	97.9	158.6	155.1	3.46	45.857		
1,100.0	1,098.6	1,055.7	1,043.0	2.0	3.1	-179.61	82.8	120.8	193.4	189.6	3.79	51.067		
1,200.0	1,198.3	1,141.9	1,125.0	2.3	3.6	-178.01	92.6	145.6	231.1	227.0	4.11	56.223		
1,300.0	1,297.9	1,225.9	1,204.1	2.5	4.1	-176.75	102.9	171.9	271.6	267.2	4.43	61.340		
1,400.0	1,397.6	1,314.9	1,287.3	2.7	4.7	-175.70	114.5	201.3	314.0	309.2	4.75	66.041		
1,500.0	1,497.3	1,405.3	1,371.8	2.9	5.3	-174.88	126.3	231.2	356.5	351.4	5.08	70.136		
1,600.0	1,597.0	1,495.7	1,456.3	3.1	5.9	-174.24	138.0	261.1	399.0	393.6	5.41	73.742		
1,700.0	1,696.7	1,586.1	1,540.8	3.3	6.5	-173.72	149.8	291.1	441.6	435.9	5.74	76.940		
1,800.0	1,796.4	1,676.5	1,625.3	3.6	7.1	-173.29	161.5	321.0	484.2	478.2	6.07	79.797		

# Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Reference Site:</b>	S4-T3N-R68W (Minch)	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S4-T3N-R68W (Minch) - Minch 4-6-4 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
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	-10.9	0.0	10.9					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-10.9	0.0	10.9	10.6	0.30	35.986		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-10.9	0.0	10.9	10.3	0.65	16.742		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-10.9	0.0	10.9	9.9	1.00	10.909		
400.0	400.0	400.0	400.0	0.7	0.7	-180.00	-10.9	0.0	10.9	9.6	1.35	8.090		
500.0	500.0	500.0	500.0	0.8	0.8	-180.00	-10.9	0.0	10.9	9.2	1.70	6.429		
590.7	590.7	590.6	590.5	1.0	1.0	-69.28	-11.1	1.4	10.6	8.6	2.02	5.247 CC		
600.0	600.0	599.9	599.8	1.0	1.0	-72.40	-11.1	1.7	10.6	8.6	2.05	5.171 ES, SF		
700.0	699.8	699.1	698.9	1.2	1.2	-113.29	-11.7	6.9	14.8	12.4	2.41	6.141		
800.0	799.5	797.2	796.6	1.4	1.4	-135.94	-12.7	15.3	27.9	25.2	2.76	10.122		
900.0	899.2	894.2	892.9	1.6	1.7	-143.39	-14.0	26.9	46.0	42.9	3.11	14.812		
1,000.0	998.9	989.9	987.5	1.8	1.9	-146.20	-15.7	41.5	67.7	64.2	3.46	19.583		
1,100.0	1,098.6	1,084.1	1,080.1	2.0	2.2	-147.32	-17.7	59.0	92.7	88.9	3.81	24.326		
1,200.0	1,198.3	1,176.7	1,170.4	2.3	2.6	-147.71	-20.0	79.0	120.7	116.6	4.16	29.018		
1,300.0	1,297.9	1,267.5	1,258.3	2.5	3.0	-147.75	-22.6	101.5	151.8	147.3	4.51	33.654		
1,400.0	1,397.6	1,356.3	1,343.6	2.7	3.5	-147.62	-25.4	126.2	185.8	181.0	4.86	38.235		
1,500.0	1,497.3	1,443.2	1,426.2	2.9	3.9	-147.42	-28.4	152.9	222.7	217.5	5.21	42.765		
1,600.0	1,597.0	1,527.9	1,506.0	3.1	4.5	-147.17	-31.7	181.3	262.3	256.7	5.55	47.245		
1,700.0	1,696.7	1,610.5	1,582.9	3.3	5.0	-146.92	-35.1	211.2	304.5	298.6	5.89	51.679		
1,800.0	1,796.4	1,699.5	1,665.2	3.6	5.6	-146.66	-39.0	244.8	348.3	342.0	6.24	55.775		
1,900.0	1,896.0	1,789.3	1,748.3	3.8	6.3	-146.46	-42.9	278.8	392.1	385.5	6.60	59.420		
2,000.0	1,995.7	1,879.2	1,831.4	4.0	6.9	-146.30	-46.8	312.9	435.9	428.9	6.95	62.692		
2,100.0	2,095.4	1,969.1	1,914.5	4.2	7.5	-146.17	-50.7	346.9	479.7	472.4	7.31	65.645		

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Minch 0-6-4
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Reference Site:</b>	S4-T3N-R68W (Minch)	<b>MD Reference:</b>	WELL @ 5090.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Minch 0-6-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5090.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Minch 0-6-4

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.31°

