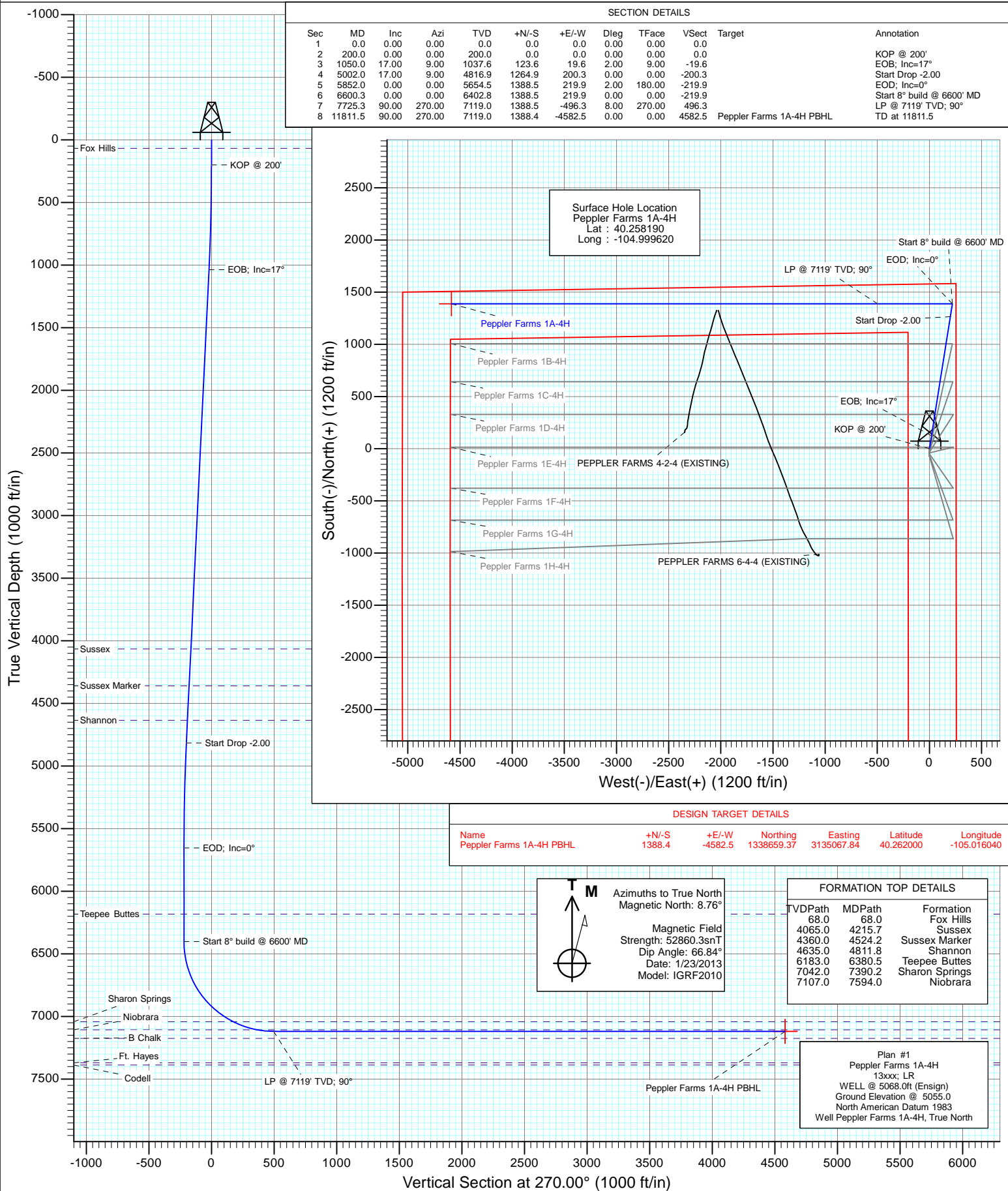




Project: DJ Wattenberg
Site: S4-T3N-R68W (Peppler Farms)
Well: Peppler Farms 1A-4H
Wellbore: Hz
Design: Plan #1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5068.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5068.0ft (Ensign)
Site:	S4-T3N-R68W (Peppler Farms)	North Reference:	True
Well:	Peppler Farms 1A-4H	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		S4-T3N-R68W (Peppler Farms)			
Site Position:		Northing:	1,337,296.89 ft	Latitude:	40.258190
From:	Lat/Long	Easting:	3,139,658.06 ft	Longitude:	-104.999620
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.32 °

Well	Peppler Farms 1A-4H					
Well Position	+N/-S	0.0 ft	Northing:	1,337,296.89 ft	Latitude:	40.258190
	+E/-W	0.0 ft	Easting:	3,139,658.06 ft	Longitude:	-104.999620
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,055.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/23/2013	8.76	66.84	52,860

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	270.00

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,050.0	17.00	9.00	1,037.6	123.6	19.6	2.00	2.00	0.00	9.00	
5,002.0	17.00	9.00	4,816.9	1,264.9	200.3	0.00	0.00	0.00	0.00	
5,852.0	0.00	0.00	5,654.5	1,388.5	219.9	2.00	-2.00	0.00	180.00	
6,600.3	0.00	0.00	6,402.8	1,388.5	219.9	0.00	0.00	0.00	0.00	
7,725.3	90.00	270.00	7,119.0	1,388.5	-496.3	8.00	8.00	0.00	270.00	
11,811.5	90.00	270.00	7,119.0	1,388.4	-4,582.5	0.00	0.00	0.00	0.00	Peppler Farms 1A-4H

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5068.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5068.0ft (Ensign)
Site:	S4-T3N-R68W (Peppler Farms)	North Reference:	True
Well:	Peppler Farms 1A-4H	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	
68.0	0.00	0.00	68.0	0.0	0.0	0.0	0.00	0.00	Fox Hills
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	KOP @ 200'
300.0	2.00	9.00	300.0	1.7	0.3	-0.3	2.00	2.00	
400.0	4.00	9.00	399.8	6.9	1.1	-1.1	2.00	2.00	
500.0	6.00	9.00	499.5	15.5	2.5	-2.5	2.00	2.00	
600.0	8.00	9.00	598.7	27.5	4.4	-4.4	2.00	2.00	
700.0	10.00	9.00	697.5	43.0	6.8	-6.8	2.00	2.00	
800.0	12.00	9.00	795.6	61.8	9.8	-9.8	2.00	2.00	
900.0	14.00	9.00	893.1	84.0	13.3	-13.3	2.00	2.00	
1,000.0	16.00	9.00	989.6	109.6	17.4	-17.4	2.00	2.00	
1,050.0	17.00	9.00	1,037.6	123.6	19.6	-19.6	2.00	2.00	EOB; Inc=17°
1,100.0	17.00	9.00	1,085.4	138.1	21.9	-21.9	0.00	0.00	
1,200.0	17.00	9.00	1,181.0	167.0	26.4	-26.4	0.00	0.00	
1,300.0	17.00	9.00	1,276.7	195.8	31.0	-31.0	0.00	0.00	
1,400.0	17.00	9.00	1,372.3	224.7	35.6	-35.6	0.00	0.00	
1,500.0	17.00	9.00	1,467.9	253.6	40.2	-40.2	0.00	0.00	
1,600.0	17.00	9.00	1,563.6	282.5	44.7	-44.7	0.00	0.00	
1,700.0	17.00	9.00	1,659.2	311.3	49.3	-49.3	0.00	0.00	
1,800.0	17.00	9.00	1,754.8	340.2	53.9	-53.9	0.00	0.00	
1,900.0	17.00	9.00	1,850.4	369.1	58.5	-58.5	0.00	0.00	
2,000.0	17.00	9.00	1,946.1	398.0	63.0	-63.0	0.00	0.00	
2,100.0	17.00	9.00	2,041.7	426.8	67.6	-67.6	0.00	0.00	
2,200.0	17.00	9.00	2,137.3	455.7	72.2	-72.2	0.00	0.00	
2,300.0	17.00	9.00	2,233.0	484.6	76.8	-76.8	0.00	0.00	
2,400.0	17.00	9.00	2,328.6	513.5	81.3	-81.3	0.00	0.00	
2,500.0	17.00	9.00	2,424.2	542.4	85.9	-85.9	0.00	0.00	
2,600.0	17.00	9.00	2,519.9	571.2	90.5	-90.5	0.00	0.00	
2,700.0	17.00	9.00	2,615.5	600.1	95.0	-95.0	0.00	0.00	
2,800.0	17.00	9.00	2,711.1	629.0	99.6	-99.6	0.00	0.00	
2,900.0	17.00	9.00	2,806.7	657.9	104.2	-104.2	0.00	0.00	
3,000.0	17.00	9.00	2,902.4	686.7	108.8	-108.8	0.00	0.00	
3,100.0	17.00	9.00	2,998.0	715.6	113.3	-113.3	0.00	0.00	
3,200.0	17.00	9.00	3,093.6	744.5	117.9	-117.9	0.00	0.00	
3,300.0	17.00	9.00	3,189.3	773.4	122.5	-122.5	0.00	0.00	
3,400.0	17.00	9.00	3,284.9	802.3	127.1	-127.1	0.00	0.00	
3,500.0	17.00	9.00	3,380.5	831.1	131.6	-131.6	0.00	0.00	
3,600.0	17.00	9.00	3,476.2	860.0	136.2	-136.2	0.00	0.00	
3,700.0	17.00	9.00	3,571.8	888.9	140.8	-140.8	0.00	0.00	
3,800.0	17.00	9.00	3,667.4	917.8	145.4	-145.4	0.00	0.00	
3,900.0	17.00	9.00	3,763.1	946.6	149.9	-149.9	0.00	0.00	
4,000.0	17.00	9.00	3,858.7	975.5	154.5	-154.5	0.00	0.00	
4,100.0	17.00	9.00	3,954.3	1,004.4	159.1	-159.1	0.00	0.00	
4,200.0	17.00	9.00	4,049.9	1,033.3	163.7	-163.7	0.00	0.00	
4,215.7	17.00	9.00	4,065.0	1,037.8	164.4	-164.4	0.00	0.00	Sussex
4,300.0	17.00	9.00	4,145.6	1,062.1	168.2	-168.2	0.00	0.00	
4,400.0	17.00	9.00	4,241.2	1,091.0	172.8	-172.8	0.00	0.00	
4,500.0	17.00	9.00	4,336.8	1,119.9	177.4	-177.4	0.00	0.00	
4,524.2	17.00	9.00	4,360.0	1,126.9	178.5	-178.5	0.00	0.00	Sussex Marker
4,600.0	17.00	9.00	4,432.5	1,148.8	181.9	-181.9	0.00	0.00	
4,700.0	17.00	9.00	4,528.1	1,177.7	186.5	-186.5	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5068.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5068.0ft (Ensign)
Site:	S4-T3N-R68W (Peppler Farms)	North Reference:	True
Well:	Peppler Farms 1A-4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,800.0	17.00	9.00	4,623.7	1,206.5	191.1	-191.1	0.00	0.00	
4,811.8	17.00	9.00	4,635.0	1,209.9	191.6	-191.6	0.00	0.00	Shannon
4,900.0	17.00	9.00	4,719.4	1,235.4	195.7	-195.7	0.00	0.00	
5,000.0	17.00	9.00	4,815.0	1,264.3	200.2	-200.2	0.00	0.00	
5,002.0	17.00	9.00	4,816.9	1,264.9	200.3	-200.3	0.00	0.00	Start Drop -2.00
5,100.0	15.04	9.00	4,911.1	1,291.6	204.6	-204.6	2.00	-2.00	
5,200.0	13.04	9.00	5,008.1	1,315.5	208.4	-208.4	2.00	-2.00	
5,300.0	11.04	9.00	5,105.9	1,336.1	211.6	-211.6	2.00	-2.00	
5,400.0	9.04	9.00	5,204.4	1,353.4	214.4	-214.4	2.00	-2.00	
5,500.0	7.04	9.00	5,303.4	1,367.2	216.5	-216.5	2.00	-2.00	
5,600.0	5.04	9.00	5,402.8	1,377.6	218.2	-218.2	2.00	-2.00	
5,700.0	3.04	9.00	5,502.6	1,384.5	219.3	-219.3	2.00	-2.00	
5,800.0	1.04	9.00	5,602.5	1,388.0	219.8	-219.8	2.00	-2.00	
5,852.0	0.00	0.00	5,654.5	1,388.5	219.9	-219.9	2.00	-2.00	EOD; Inc=0°
5,900.0	0.00	0.00	5,702.5	1,388.5	219.9	-219.9	0.00	0.00	
6,000.0	0.00	0.00	5,802.5	1,388.5	219.9	-219.9	0.00	0.00	
6,100.0	0.00	0.00	5,902.5	1,388.5	219.9	-219.9	0.00	0.00	
6,200.0	0.00	0.00	6,002.5	1,388.5	219.9	-219.9	0.00	0.00	
6,300.0	0.00	0.00	6,102.5	1,388.5	219.9	-219.9	0.00	0.00	
6,380.5	0.00	0.00	6,183.0	1,388.5	219.9	-219.9	0.00	0.00	Teepee Buttes
6,400.0	0.00	0.00	6,202.5	1,388.5	219.9	-219.9	0.00	0.00	
6,500.0	0.00	0.00	6,302.5	1,388.5	219.9	-219.9	0.00	0.00	
6,600.0	0.00	0.00	6,402.5	1,388.5	219.9	-219.9	0.00	0.00	
6,600.3	0.00	0.00	6,402.8	1,388.5	219.9	-219.9	0.00	0.00	Start 8° build @ 6600' MD
6,700.0	7.97	270.00	6,502.2	1,388.5	213.0	-213.0	8.00	8.00	
6,800.0	15.97	270.00	6,599.9	1,388.5	192.3	-192.3	8.00	8.00	
6,900.0	23.97	270.00	6,693.8	1,388.5	158.1	-158.1	8.00	8.00	
7,000.0	31.97	270.00	6,782.1	1,388.5	111.3	-111.3	8.00	8.00	
7,100.0	39.97	270.00	6,862.9	1,388.5	52.6	-52.6	8.00	8.00	
7,200.0	47.97	270.00	6,934.8	1,388.5	-16.8	16.8	8.00	8.00	
7,300.0	55.97	270.00	6,996.4	1,388.5	-95.5	95.5	8.00	8.00	
7,390.2	63.19	270.00	7,042.0	1,388.5	-173.2	173.2	8.00	8.00	Sharon Springs
7,400.0	63.97	270.00	7,046.4	1,388.5	-182.0	182.0	8.00	8.00	
7,500.0	71.97	270.00	7,083.8	1,388.5	-274.7	274.7	8.00	8.00	
7,594.0	79.50	270.00	7,107.0	1,388.5	-365.7	365.7	8.00	8.00	Niobrara
7,600.0	79.97	270.00	7,108.1	1,388.5	-371.6	371.6	8.00	8.00	
7,700.0	87.97	270.00	7,118.6	1,388.5	-471.0	471.0	8.00	8.00	
7,725.3	90.00	270.00	7,119.0	1,388.5	-496.3	496.3	8.00	8.00	LP @ 7119' TVD; 90°
7,800.0	90.00	270.00	7,119.0	1,388.5	-571.0	571.0	0.00	0.00	
7,900.0	90.00	270.00	7,119.0	1,388.5	-671.0	671.0	0.00	0.00	
8,000.0	90.00	270.00	7,119.0	1,388.5	-771.0	771.0	0.00	0.00	
8,100.0	90.00	270.00	7,119.0	1,388.5	-871.0	871.0	0.00	0.00	
8,200.0	90.00	270.00	7,119.0	1,388.5	-971.0	971.0	0.00	0.00	
8,300.0	90.00	270.00	7,119.0	1,388.5	-1,071.0	1,071.0	0.00	0.00	
8,400.0	90.00	270.00	7,119.0	1,388.5	-1,171.0	1,171.0	0.00	0.00	
8,500.0	90.00	270.00	7,119.0	1,388.5	-1,271.0	1,271.0	0.00	0.00	
8,600.0	90.00	270.00	7,119.0	1,388.5	-1,371.0	1,371.0	0.00	0.00	
8,700.0	90.00	270.00	7,119.0	1,388.5	-1,471.0	1,471.0	0.00	0.00	
8,800.0	90.00	270.00	7,119.0	1,388.4	-1,571.0	1,571.0	0.00	0.00	
8,900.0	90.00	270.00	7,119.0	1,388.4	-1,671.0	1,671.0	0.00	0.00	
9,000.0	90.00	270.00	7,119.0	1,388.4	-1,771.0	1,771.0	0.00	0.00	
9,100.0	90.00	270.00	7,119.0	1,388.4	-1,871.0	1,871.0	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5068.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5068.0ft (Ensign)
Site:	S4-T3N-R68W (Peppler Farms)	North Reference:	True
Well:	Peppler Farms 1A-4H	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
9,200.0	90.00	270.00	7,119.0	1,388.4	-1,971.0	1,971.0	0.00	0.00	
9,300.0	90.00	270.00	7,119.0	1,388.4	-2,071.0	2,071.0	0.00	0.00	
9,400.0	90.00	270.00	7,119.0	1,388.4	-2,171.0	2,171.0	0.00	0.00	
9,500.0	90.00	270.00	7,119.0	1,388.4	-2,271.0	2,271.0	0.00	0.00	
9,600.0	90.00	270.00	7,119.0	1,388.4	-2,371.0	2,371.0	0.00	0.00	
9,700.0	90.00	270.00	7,119.0	1,388.4	-2,471.0	2,471.0	0.00	0.00	
9,800.0	90.00	270.00	7,119.0	1,388.4	-2,571.0	2,571.0	0.00	0.00	
9,900.0	90.00	270.00	7,119.0	1,388.4	-2,671.0	2,671.0	0.00	0.00	
10,000.0	90.00	270.00	7,119.0	1,388.4	-2,771.0	2,771.0	0.00	0.00	
10,100.0	90.00	270.00	7,119.0	1,388.4	-2,871.0	2,871.0	0.00	0.00	
10,200.0	90.00	270.00	7,119.0	1,388.4	-2,971.0	2,971.0	0.00	0.00	
10,300.0	90.00	270.00	7,119.0	1,388.4	-3,071.0	3,071.0	0.00	0.00	
10,400.0	90.00	270.00	7,119.0	1,388.4	-3,171.0	3,171.0	0.00	0.00	
10,500.0	90.00	270.00	7,119.0	1,388.4	-3,271.0	3,271.0	0.00	0.00	
10,600.0	90.00	270.00	7,119.0	1,388.4	-3,371.0	3,371.0	0.00	0.00	
10,700.0	90.00	270.00	7,119.0	1,388.4	-3,471.0	3,471.0	0.00	0.00	
10,800.0	90.00	270.00	7,119.0	1,388.4	-3,571.0	3,571.0	0.00	0.00	
10,900.0	90.00	270.00	7,119.0	1,388.4	-3,671.0	3,671.0	0.00	0.00	
11,000.0	90.00	270.00	7,119.0	1,388.4	-3,771.0	3,771.0	0.00	0.00	
11,100.0	90.00	270.00	7,119.0	1,388.4	-3,871.0	3,871.0	0.00	0.00	
11,200.0	90.00	270.00	7,119.0	1,388.4	-3,971.0	3,971.0	0.00	0.00	
11,300.0	90.00	270.00	7,119.0	1,388.4	-4,071.0	4,071.0	0.00	0.00	
11,400.0	90.00	270.00	7,119.0	1,388.4	-4,171.0	4,171.0	0.00	0.00	
11,500.0	90.00	270.00	7,119.0	1,388.4	-4,271.0	4,271.0	0.00	0.00	
11,600.0	90.00	270.00	7,119.0	1,388.4	-4,371.0	4,371.0	0.00	0.00	
11,700.0	90.00	270.00	7,119.0	1,388.4	-4,471.0	4,471.0	0.00	0.00	
11,800.0	90.00	270.00	7,119.0	1,388.4	-4,571.0	4,571.0	0.00	0.00	
11,811.5	90.00	270.00	7,119.0	1,388.4	-4,582.5	4,582.5	0.00	0.00	TD at 11811.5 - Peppler Farms 1A-4H PBHL

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Peppler Farms 1A-4H PI - plan hits target center - Point	0.00	0.00	7,119.0	1,388.4	-4,582.5	1,338,659.37	3,135,067.84	40.262000	-105.016040

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5068.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5068.0ft (Ensign)
Site:	S4-T3N-R68W (Peppler Farms)	North Reference:	True
Well:	Peppler Farms 1A-4H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
68.0	68.0	Fox Hills				
4,215.7	4,065.0	Sussex				
4,524.2	4,360.0	Sussex Marker				
4,811.8	4,635.0	Shannon				
6,380.5	6,183.0	Teepee Buttes				
7,390.2	7,042.0	Sharon Springs				
7,594.0	7,107.0	Niobrara				

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200'
1,050.0	1,037.6	123.6	19.6	EOB; Inc=17°
5,002.0	4,816.9	1,264.9	200.3	Start Drop -2.00
5,852.0	5,654.5	1,388.5	219.9	EOD; Inc=0°
6,600.3	6,402.8	1,388.5	219.9	Start 8° build @ 6600' MD
7,725.3	7,119.0	1,388.5	-496.3	LP @ 7119' TVD; 90°
11,811.5	7,119.0	1,388.4	-4,582.5	TD at 11811.5

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S4-T3N-R68W (Peppler Farms)

Peppler Farms 1A-4H

Hz

Plan #1

Anticollision Report

24 January, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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	1/24/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,811.3	Plan #1 (Hz)	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 (Peppler Farms)						
Peppler Farms 1B-4H - Hz - Plan #1	200.0	199.0	10.9	10.3	16.794	CC, ES
Peppler Farms 1B-4H - Hz - Plan #1	11,811.5	11,993.5	474.0	284.9	2.506	SF
Peppler Farms 1C-4H - Hz - Plan #1	200.0	199.0	21.9	21.2	33.581	CC, ES
Peppler Farms 1C-4H - Hz - Plan #1	400.0	398.8	28.8	27.4	21.354	SF
Peppler Farms 1D-4H - Hz - Plan #1	200.0	199.0	32.8	32.1	50.368	CC, ES
Peppler Farms 1D-4H - Hz - Plan #1	500.0	498.5	48.4	46.7	28.551	SF
Peppler Farms 1E-4H - Hz - Plan #1	200.0	198.0	40.1	39.4	61.725	CC, ES
Peppler Farms 1E-4H - Hz - Plan #1	500.0	497.5	55.6	53.9	32.879	SF
Peppler Farms 1F-4H - Hz - Plan #1	200.0	198.0	51.0	50.4	78.557	CC, ES
Peppler Farms 1F-4H - Hz - Plan #1	600.0	596.7	78.7	76.6	38.639	SF
Peppler Farms 1G-4H - Hz - Plan #1	200.0	198.0	61.9	61.3	95.390	CC, ES
Peppler Farms 1G-4H - Hz - Plan #1	600.0	593.8	92.7	90.6	45.599	SF
Peppler Farms 1H-4H - Hz - Plan #1	200.0	198.0	72.9	72.2	112.222	CC, ES
Peppler Farms 1H-4H - Hz - Plan #1	600.0	589.6	113.4	111.3	55.915	SF
PEPPLER FARMS 4-2-4 (EXISTING) - Existing - Existing						Out of range
PEPPLER FARMS 6-4-4 (EXISTING) - Existing - Existing						Out of range

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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 S4-T3N-R68W (Peppler Farms) - Peppler Farms 1B-4H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-10.9	0.0	11.0					
100.0	100.0	99.0	99.0	0.2	0.2	-180.00	-10.9	0.0	10.9	10.6	0.30	36.181		
200.0	200.0	199.0	199.0	0.3	0.3	-180.00	-10.9	0.0	10.9	10.3	0.65	16.794 CC, ES		
300.0	300.0	299.0	299.0	0.5	0.5	172.23	-10.9	0.0	12.7	11.7	1.00	12.663		
400.0	399.8	399.1	399.1	0.7	0.7	174.06	-10.1	0.2	17.0	15.7	1.35	12.622		
500.0	499.5	499.3	499.2	0.9	0.9	175.27	-7.5	0.7	23.1	21.4	1.70	13.642		
600.0	598.7	599.4	599.3	1.2	1.0	176.01	-3.3	1.7	31.0	28.9	2.04	15.182		
700.0	697.5	699.6	699.3	1.5	1.2	176.47	2.7	2.9	40.6	38.2	2.38	17.018		
800.0	795.6	799.8	799.1	1.9	1.4	176.75	10.4	4.6	51.9	49.2	2.73	19.041		
900.0	893.1	899.9	898.8	2.3	1.7	176.92	19.7	6.6	65.0	61.9	3.07	21.192		
1,000.0	989.6	1,000.1	998.3	2.8	1.9	177.02	30.8	9.0	79.8	76.4	3.41	23.437		
1,100.0	1,085.4	1,100.3	1,097.7	3.3	2.2	177.08	43.6	11.8	95.9	92.2	3.75	25.573		
1,200.0	1,181.0	1,201.0	1,197.3	3.8	2.5	177.04	58.2	14.9	110.7	106.6	4.11	26.964		
1,300.0	1,276.7	1,302.2	1,297.1	4.3	2.8	176.93	74.5	18.5	123.8	119.4	4.47	27.729		
1,400.0	1,372.3	1,403.8	1,397.0	4.9	3.2	176.75	92.7	22.4	135.2	130.3	4.83	28.003		
1,500.0	1,467.9	1,505.7	1,496.8	5.4	3.5	176.51	112.6	26.7	144.7	139.6	5.19	27.886		
1,600.0	1,563.6	1,605.3	1,594.2	5.9	3.9	176.28	132.8	31.1	153.5	148.0	5.55	27.655		
1,700.0	1,659.2	1,704.9	1,691.7	6.5	4.3	176.07	153.1	35.5	162.4	156.4	5.91	27.449		
1,800.0	1,754.8	1,804.5	1,789.1	7.0	4.7	175.89	173.3	39.8	171.2	164.9	6.28	27.263		
1,900.0	1,850.4	1,904.1	1,886.5	7.5	5.1	175.72	193.6	44.2	180.0	173.3	6.64	27.094		
2,000.0	1,946.1	2,003.7	1,984.0	8.1	5.4	175.56	213.8	48.6	188.8	181.8	7.01	26.940		
2,100.0	2,041.7	2,103.4	2,081.4	8.6	5.8	175.42	234.1	53.0	197.6	190.2	7.37	26.799		
2,200.0	2,137.3	2,203.0	2,178.8	9.1	6.2	175.30	254.3	57.3	206.4	198.7	7.74	26.669		
2,300.0	2,233.0	2,302.6	2,276.3	9.7	6.6	175.18	274.5	61.7	215.2	207.1	8.11	26.549		
2,400.0	2,328.6	2,402.2	2,373.7	10.2	7.0	175.07	294.8	66.1	224.0	215.6	8.47	26.438		
2,500.0	2,424.2	2,501.8	2,471.1	10.8	7.4	174.97	315.0	70.5	232.8	224.0	8.84	26.335		
2,600.0	2,519.9	2,601.4	2,568.6	11.3	7.8	174.88	335.3	74.9	241.7	232.4	9.21	26.239		
2,700.0	2,615.5	2,701.0	2,666.0	11.8	8.2	174.79	355.5	79.2	250.5	240.9	9.58	26.149		
2,800.0	2,711.1	2,800.6	2,763.4	12.4	8.6	174.71	375.8	83.6	259.3	249.3	9.95	26.065		
2,900.0	2,806.7	2,900.2	2,860.9	12.9	9.0	174.64	396.0	88.0	268.1	257.8	10.32	25.987		
3,000.0	2,902.4	2,999.8	2,958.3	13.4	9.4	174.57	416.2	92.4	276.9	266.2	10.69	25.912		
3,100.0	2,998.0	3,099.5	3,055.7	14.0	9.8	174.50	436.5	96.7	285.7	274.7	11.06	25.843		
3,200.0	3,093.6	3,199.1	3,153.2	14.5	10.2	174.44	456.7	101.1	294.6	283.1	11.43	25.777		
3,300.0	3,189.3	3,298.7	3,250.6	15.1	10.6	174.38	477.0	105.5	303.4	291.6	11.80	25.715		
3,400.0	3,284.9	3,398.3	3,348.0	15.6	11.0	174.33	497.2	109.9	312.2	300.0	12.17	25.656		
3,500.0	3,380.5	3,497.9	3,445.5	16.1	11.4	174.28	517.4	114.2	321.0	308.5	12.54	25.600		
3,600.0	3,476.2	3,597.5	3,542.9	16.7	11.8	174.23	537.7	118.6	329.8	316.9	12.91	25.547		
3,700.0	3,571.8	3,697.1	3,640.3	17.2	12.2	174.18	557.9	123.0	338.6	325.4	13.28	25.497		
3,800.0	3,667.4	3,796.7	3,737.8	17.8	12.6	174.14	578.2	127.4	347.5	333.8	13.65	25.449		
3,900.0	3,763.1	3,896.3	3,835.2	18.3	13.0	174.10	598.4	131.7	356.3	342.3	14.03	25.403		
4,000.0	3,858.7	3,995.9	3,932.6	18.8	13.4	174.06	618.7	136.1	365.1	350.7	14.40	25.359		
4,100.0	3,954.3	4,095.6	4,030.1	19.4	13.8	174.02	638.9	140.5	373.9	359.2	14.77	25.318		
4,200.0	4,049.9	4,195.2	4,127.5	19.9	14.2	173.98	659.1	144.9	382.7	367.6	15.14	25.278		
4,300.0	4,145.6	4,294.8	4,224.9	20.5	14.6	173.95	679.4	149.3	391.6	376.1	15.51	25.240		
4,400.0	4,241.2	4,394.4	4,322.4	21.0	15.0	173.91	699.6	153.6	400.4	384.5	15.89	25.203		
4,500.0	4,336.8	4,494.0	4,419.8	21.5	15.4	173.88	719.9	158.0	409.2	392.9	16.26	25.168		
4,600.0	4,432.5	4,593.6	4,517.2	22.1	15.8	173.85	740.1	162.4	418.0	401.4	16.63	25.135		
4,700.0	4,528.1	4,693.2	4,614.7	22.6	16.2	173.82	760.4	166.8	426.8	409.8	17.00	25.102		
4,800.0	4,623.7	4,792.8	4,712.1	23.1	16.6	173.79	780.6	171.1	435.7	418.3	17.38	25.071		
4,900.0	4,719.4	4,892.4	4,809.5	23.7	17.0	173.77	800.8	175.5	444.5	426.7	17.75	25.042		
5,000.0	4,815.0	4,992.0	4,907.0	24.2	17.4	173.74	821.1	179.9	453.3	435.2	18.12	25.013		
5,100.0	4,911.1	5,091.8	5,004.5	24.7	17.8	173.71	841.4	184.3	460.5	441.9	18.52	24.860		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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 S4-T3N-R68W (Peppler Farms) - Peppler Farms 1B-4H - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,200.0	5,008.1	5,191.7	5,102.3	25.1	18.2	173.62	861.7	188.7	464.2	445.2	18.92	24.536		
5,300.0	5,105.9	5,291.7	5,200.1	25.5	18.6	173.48	882.0	193.1	464.4	445.1	19.31	24.052		
5,400.0	5,204.4	5,384.9	5,291.4	25.8	18.9	173.31	900.3	197.0	461.8	442.2	19.67	23.474		
5,500.0	5,303.4	5,477.5	5,382.3	26.1	19.3	173.12	917.1	200.6	457.4	437.4	20.03	22.838		
5,600.0	5,402.8	5,570.0	5,473.5	26.3	19.6	172.90	932.4	204.0	451.1	430.7	20.37	22.146		
5,700.0	5,502.6	5,662.6	5,565.0	26.5	19.9	172.66	946.3	207.0	442.9	422.2	20.70	21.398		
5,800.0	5,602.5	5,755.1	5,656.6	26.6	20.1	172.38	958.8	209.7	432.9	411.9	21.02	20.595		
5,900.0	5,702.5	5,847.6	5,748.5	26.6	20.4	-178.92	969.8	212.0	421.4	375.0	46.47	9.068		
6,000.0	5,802.5	5,940.4	5,840.8	26.7	20.6	-179.19	979.4	214.1	411.1	364.3	46.73	8.797		
6,100.0	5,902.5	6,033.6	5,933.5	26.8	20.8	-179.42	987.5	215.9	402.3	355.3	46.96	8.566		
6,200.0	6,002.5	6,126.9	6,026.6	26.8	20.9	-179.62	994.2	217.3	395.1	348.0	47.18	8.374		
6,300.0	6,102.5	6,220.5	6,120.1	26.9	21.1	-179.78	999.4	218.4	389.6	342.2	47.39	8.221		
6,400.0	6,202.5	6,314.2	6,213.7	27.0	21.2	-179.90	1,003.1	219.2	385.6	338.0	47.58	8.105		
6,500.0	6,302.5	6,408.0	6,307.5	27.0	21.3	-179.97	1,005.3	219.7	383.2	335.5	47.75	8.026		
6,600.0	6,402.5	6,502.0	6,401.5	27.1	21.4	-179.99	1,006.0	219.9	382.5	334.5	47.91	7.983		
6,628.4	6,430.8	6,530.4	6,429.8	27.1	21.4	-90.08	1,006.0	219.9	382.5	358.4	24.01	15.927		
6,700.0	6,502.2	6,601.7	6,501.2	27.2	21.5	-91.02	1,006.0	219.9	382.5	358.1	24.44	15.652		
6,800.0	6,599.9	6,699.5	6,598.9	27.2	21.6	-93.97	1,006.0	219.9	383.5	358.1	25.39	15.100		
6,900.0	6,693.8	6,794.4	6,693.9	27.2	21.7	-98.44	1,006.0	219.8	387.4	360.7	26.68	14.520		
7,000.0	6,782.1	6,898.3	6,797.3	27.2	21.7	-103.63	1,006.0	210.5	395.5	367.6	27.82	14.213		
7,100.0	6,862.9	7,009.4	6,905.1	27.2	21.8	-108.58	1,006.0	184.2	406.8	378.5	28.28	14.384		
7,200.0	6,934.8	7,128.9	7,015.0	27.3	21.8	-113.17	1,006.0	137.7	420.4	392.4	27.99	15.019		
7,300.0	6,996.4	7,257.8	7,123.1	27.5	21.8	-117.28	1,006.0	67.8	435.0	407.8	27.18	16.006		
7,400.0	7,046.4	7,396.8	7,223.6	27.7	22.0	-120.78	1,006.0	-27.9	449.2	422.8	26.41	17.006		
7,500.0	7,083.8	7,545.7	7,308.6	28.1	22.3	-123.52	1,006.0	-149.9	461.3	434.8	26.54	17.381		
7,600.0	7,108.1	7,703.0	7,369.0	28.7	23.1	-125.36	1,006.0	-294.7	469.9	441.5	28.45	16.518		
7,700.0	7,118.6	7,865.7	7,396.8	29.4	24.5	-126.17	1,006.0	-454.7	473.8	441.4	32.44	14.604		
7,800.0	7,119.0	7,982.0	7,398.0	30.2	25.8	-126.21	1,006.0	-570.9	474.0	438.0	35.95	13.183		
7,900.0	7,119.0	8,082.0	7,398.0	31.3	27.2	-126.21	1,006.0	-670.9	474.0	434.9	39.07	12.132		
8,000.0	7,119.0	8,182.0	7,398.0	32.5	28.8	-126.21	1,006.0	-770.9	474.0	431.7	42.33	11.197		
8,100.0	7,119.0	8,282.0	7,398.0	33.9	30.6	-126.21	1,006.0	-870.9	474.0	428.3	45.72	10.368		
8,200.0	7,119.0	8,382.0	7,398.0	35.5	32.4	-126.21	1,006.0	-970.9	474.0	424.8	49.19	9.636		
8,300.0	7,119.0	8,482.0	7,398.0	37.2	34.4	-126.21	1,006.0	-1,070.9	474.0	421.3	52.74	8.988		
8,400.0	7,119.0	8,582.0	7,398.0	39.0	36.4	-126.21	1,006.0	-1,170.9	474.0	417.7	56.35	8.412		
8,500.0	7,119.0	8,682.0	7,398.0	40.9	38.5	-126.21	1,006.0	-1,270.9	474.0	414.0	60.01	7.899		
8,600.0	7,119.0	8,782.0	7,398.0	42.8	40.7	-126.21	1,006.0	-1,370.9	474.0	410.3	63.71	7.440		
8,700.0	7,119.0	8,882.0	7,398.0	44.9	42.9	-126.21	1,006.0	-1,470.9	474.0	406.6	67.44	7.028		
8,800.0	7,119.0	8,982.0	7,398.0	46.9	45.1	-126.21	1,006.0	-1,570.9	474.0	402.8	71.21	6.657		
8,900.0	7,119.0	9,082.0	7,398.0	49.1	47.3	-126.21	1,006.0	-1,670.9	474.0	399.0	74.99	6.321		
9,000.0	7,119.0	9,182.0	7,398.0	51.2	49.6	-126.21	1,006.0	-1,770.9	474.0	395.2	78.80	6.015		
9,100.0	7,119.0	9,282.0	7,398.0	53.4	51.9	-126.21	1,006.0	-1,870.9	474.0	391.4	82.63	5.737		
9,200.0	7,119.0	9,382.0	7,398.0	55.7	54.2	-126.21	1,006.0	-1,970.9	474.0	387.5	86.47	5.482		
9,300.0	7,119.0	9,482.0	7,398.0	57.9	56.6	-126.21	1,006.0	-2,070.9	474.0	383.7	90.33	5.248		
9,400.0	7,119.0	9,582.0	7,398.0	60.2	58.9	-126.21	1,006.0	-2,170.9	474.0	379.8	94.20	5.032		
9,500.0	7,119.0	9,682.0	7,398.0	62.5	61.2	-126.21	1,005.9	-2,270.9	474.0	375.9	98.08	4.833		
9,600.0	7,119.0	9,782.0	7,398.0	64.8	63.6	-126.21	1,005.9	-2,370.9	474.0	372.1	101.96	4.649		
9,700.0	7,119.0	9,882.0	7,398.0	67.1	66.0	-126.21	1,005.9	-2,470.9	474.0	368.2	105.86	4.478		
9,800.0	7,119.0	9,982.0	7,398.0	69.4	68.4	-126.21	1,005.9	-2,570.9	474.0	364.3	109.76	4.319		
9,900.0	7,119.0	10,082.0	7,398.0	71.8	70.7	-126.21	1,005.9	-2,670.9	474.0	360.3	113.67	4.170		
10,000.0	7,119.0	10,182.0	7,398.0	74.1	73.1	-126.21	1,005.9	-2,770.9	474.0	356.4	117.59	4.031		
10,100.0	7,119.0	10,282.0	7,398.0	76.5	75.5	-126.21	1,005.9	-2,870.9	474.0	352.5	121.51	3.901		
10,200.0	7,119.0	10,382.0	7,398.0	78.9	77.9	-126.21	1,005.9	-2,970.9	474.0	348.6	125.44	3.779		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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 S4-T3N-R68W (Peppler Farms) - Peppler Farms 1B-4H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
10,300.0	7,119.0	10,482.0	7,398.0	81.2	80.3	-126.21	1,005.9	-3,070.9	474.0	344.6	129.37	3.664		
10,400.0	7,119.0	10,582.0	7,398.0	83.6	82.7	-126.21	1,005.9	-3,170.9	474.0	340.7	133.31	3.556		
10,500.0	7,119.0	10,682.0	7,398.0	86.0	85.2	-126.21	1,005.9	-3,270.9	474.0	336.8	137.25	3.454		
10,600.0	7,119.0	10,782.0	7,398.0	88.4	87.6	-126.21	1,005.9	-3,370.9	474.0	332.8	141.19	3.357		
10,700.0	7,119.0	10,882.0	7,398.0	90.8	90.0	-126.21	1,005.9	-3,470.9	474.0	328.9	145.14	3.266		
10,800.0	7,119.0	10,982.0	7,398.0	93.2	92.4	-126.21	1,005.9	-3,570.9	474.0	324.9	149.08	3.180		
10,900.0	7,119.0	11,082.0	7,398.0	95.6	94.8	-126.21	1,005.9	-3,670.9	474.0	321.0	153.04	3.097		
11,000.0	7,119.0	11,182.0	7,398.0	98.0	97.3	-126.21	1,005.9	-3,770.9	474.0	317.0	156.99	3.019		
11,100.0	7,119.0	11,282.0	7,398.0	100.4	99.7	-126.21	1,005.9	-3,870.9	474.0	313.1	160.95	2.945		
11,200.0	7,119.0	11,382.0	7,398.0	102.8	102.1	-126.21	1,005.9	-3,970.9	474.0	309.1	164.90	2.875		
11,300.0	7,119.0	11,482.0	7,398.0	105.2	104.6	-126.21	1,005.9	-4,070.9	474.0	305.2	168.86	2.807		
11,400.0	7,119.0	11,582.0	7,398.0	107.7	107.0	-126.21	1,005.9	-4,170.9	474.0	301.2	172.83	2.743		
11,500.0	7,119.0	11,682.0	7,398.0	110.1	109.4	-126.21	1,005.9	-4,270.9	474.0	297.2	176.79	2.681		
11,600.0	7,119.0	11,782.0	7,398.0	112.5	111.9	-126.21	1,005.9	-4,370.9	474.0	293.3	180.76	2.622		
11,700.0	7,119.0	11,882.0	7,398.0	114.9	114.3	-126.21	1,005.9	-4,470.9	474.0	289.3	184.72	2.566		
11,800.0	7,119.0	11,982.0	7,398.0	117.4	116.8	-126.21	1,005.9	-4,570.9	474.0	285.3	188.69	2.512		
11,811.5	7,119.0	11,993.5	7,398.0	117.6	117.1	-126.21	1,005.9	-4,582.4	474.0	284.9	189.15	2.506 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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 S4-T3N-R68W (Peppler Farms) - Peppler Farms 1C-4H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						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	-21.9	0.0	21.9					
100.0	100.0	99.0	99.0	0.2	0.2	-180.00	-21.9	0.0	21.9	21.6	0.30	72.348		
200.0	200.0	199.0	199.0	0.3	0.3	-180.00	-21.9	0.0	21.9	21.2	0.65	33.581 CC, ES		
300.0	300.0	299.0	299.0	0.5	0.5	171.66	-21.9	0.0	23.6	22.6	1.00	23.592		
400.0	399.8	398.8	398.8	0.7	0.7	173.16	-21.9	0.0	28.8	27.4	1.35	21.354 SF		
500.0	499.5	499.1	499.1	0.9	0.8	174.39	-21.1	0.3	36.6	34.9	1.69	21.610		
600.0	598.7	599.3	599.3	1.2	1.0	175.01	-18.6	1.1	46.3	44.2	2.04	22.670		
700.0	697.5	699.5	699.4	1.5	1.2	175.25	-14.4	2.5	57.7	55.3	2.39	24.179		
800.0	795.6	799.7	799.4	1.9	1.4	175.28	-8.7	4.5	70.9	68.1	2.73	25.965		
900.0	893.1	899.9	899.3	2.3	1.6	175.20	-1.2	7.0	85.8	82.7	3.07	27.934		
1,000.0	989.6	1,000.1	999.0	2.8	1.8	175.05	7.9	10.1	102.5	99.1	3.41	30.027		
1,100.0	1,085.4	1,100.4	1,098.6	3.3	2.1	174.86	18.6	13.7	120.6	116.8	3.77	32.011		
1,200.0	1,181.0	1,201.1	1,198.5	3.8	2.3	174.57	31.1	17.9	137.4	133.2	4.13	33.241		
1,300.0	1,276.7	1,302.5	1,298.7	4.3	2.6	174.16	45.3	22.7	152.5	148.0	4.51	33.846		
1,400.0	1,372.3	1,404.1	1,399.0	4.9	3.0	173.65	61.3	28.1	165.9	161.1	4.89	33.956		
1,500.0	1,467.9	1,503.3	1,496.7	5.4	3.3	173.16	77.6	33.7	178.6	173.3	5.27	33.900		
1,600.0	1,563.6	1,602.5	1,594.4	5.9	3.6	172.73	93.9	39.2	191.3	185.7	5.65	33.832		
1,700.0	1,659.2	1,701.7	1,692.0	6.5	3.9	172.36	110.2	44.7	204.0	198.0	6.04	33.756		
1,800.0	1,754.8	1,800.9	1,789.7	7.0	4.3	172.03	126.5	50.2	216.7	210.3	6.44	33.676		
1,900.0	1,850.4	1,900.1	1,887.4	7.5	4.6	171.73	142.8	55.7	229.4	222.6	6.83	33.594		
2,000.0	1,946.1	1,999.2	1,985.1	8.1	4.9	171.47	159.2	61.3	242.1	234.9	7.23	33.512		
2,100.0	2,041.7	2,098.4	2,082.7	8.6	5.3	171.24	175.5	66.8	254.9	247.2	7.62	33.431		
2,200.0	2,137.3	2,197.6	2,180.4	9.1	5.6	171.02	191.8	72.3	267.6	259.6	8.02	33.351		
2,300.0	2,233.0	2,296.8	2,278.1	9.7	5.9	170.83	208.1	77.8	280.3	271.9	8.43	33.272		
2,400.0	2,328.6	2,396.0	2,375.8	10.2	6.3	170.65	224.4	83.4	293.1	284.2	8.83	33.197		
2,500.0	2,424.2	2,495.1	2,473.4	10.8	6.6	170.49	240.7	88.9	305.8	296.6	9.23	33.124		
2,600.0	2,519.9	2,594.3	2,571.1	11.3	7.0	170.34	257.0	94.4	318.5	308.9	9.64	33.053		
2,700.0	2,615.5	2,693.5	2,668.8	11.8	7.3	170.20	273.3	99.9	331.3	321.2	10.04	32.985		
2,800.0	2,711.1	2,792.7	2,766.5	12.4	7.6	170.07	289.7	105.4	344.0	333.6	10.45	32.920		
2,900.0	2,806.7	2,891.9	2,864.1	12.9	8.0	169.95	306.0	111.0	356.8	345.9	10.86	32.858		
3,000.0	2,902.4	2,991.1	2,961.8	13.4	8.3	169.84	322.3	116.5	369.5	358.2	11.27	32.798		
3,100.0	2,998.0	3,090.2	3,059.5	14.0	8.7	169.74	338.6	122.0	382.3	370.6	11.68	32.740		
3,200.0	3,093.6	3,189.4	3,157.2	14.5	9.0	169.64	354.9	127.5	395.0	382.9	12.09	32.685		
3,300.0	3,189.3	3,288.6	3,254.8	15.1	9.4	169.55	371.2	133.1	407.8	395.3	12.50	32.632		
3,400.0	3,284.9	3,387.8	3,352.5	15.6	9.7	169.47	387.5	138.6	420.5	407.6	12.91	32.581		
3,500.0	3,380.5	3,487.0	3,450.2	16.1	10.0	169.39	403.9	144.1	433.3	419.9	13.32	32.532		
3,600.0	3,476.2	3,586.1	3,547.9	16.7	10.4	169.31	420.2	149.6	446.0	432.3	13.73	32.486		
3,700.0	3,571.8	3,685.3	3,645.5	17.2	10.7	169.24	436.5	155.1	458.8	444.6	14.14	32.441		
3,800.0	3,667.4	3,784.5	3,743.2	17.8	11.1	169.17	452.8	160.7	471.5	457.0	14.55	32.398		
3,900.0	3,763.1	3,883.7	3,840.9	18.3	11.4	169.11	469.1	166.2	484.3	469.3	14.97	32.356		
4,000.0	3,858.7	3,982.9	3,938.6	18.8	11.8	169.05	485.4	171.7	497.0	481.6	15.38	32.317		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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 S4-T3N-R68W (Peppler Farms) - Peppler Farms 1D-4H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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	-32.8	0.0	32.8					
100.0	100.0	99.0	99.0	0.2	0.2	-180.00	-32.8	0.0	32.8	32.5	0.30	108.515		
200.0	200.0	199.0	199.0	0.3	0.3	-180.00	-32.8	0.0	32.8	32.1	0.65	50.368 CC, ES		
300.0	300.0	299.0	299.0	0.5	0.5	171.45	-32.8	0.0	34.5	33.5	1.00	34.523		
400.0	399.8	398.8	398.8	0.7	0.7	172.56	-32.8	0.0	39.7	38.4	1.35	29.459		
500.0	499.5	498.5	498.5	0.9	0.8	173.88	-32.8	0.0	48.4	46.7	1.69	28.551 SF		
600.0	598.7	597.7	597.7	1.2	1.0	175.09	-32.8	0.0	60.5	58.4	2.04	29.694		
700.0	697.5	697.6	697.6	1.5	1.2	175.79	-32.1	0.4	75.4	73.0	2.38	31.671		
800.0	795.6	797.5	797.4	1.9	1.4	175.89	-29.9	1.8	92.1	89.4	2.72	33.874		
900.0	893.1	897.3	897.1	2.3	1.6	175.66	-26.3	4.2	110.8	107.8	3.06	36.218		
1,000.0	989.6	997.0	996.7	2.8	1.7	175.25	-21.2	7.4	131.4	128.0	3.40	38.648		
1,100.0	1,085.4	1,096.7	1,096.1	3.3	1.9	174.74	-14.7	11.6	153.5	149.8	3.75	40.900		
1,200.0	1,181.0	1,196.9	1,195.9	3.8	2.2	174.10	-6.6	16.7	174.6	170.4	4.12	42.324		
1,300.0	1,276.7	1,297.8	1,296.1	4.3	2.4	173.34	3.0	22.9	194.1	189.6	4.51	43.070		
1,400.0	1,372.3	1,399.2	1,396.6	4.9	2.7	172.46	14.1	30.0	212.2	207.3	4.91	43.261		
1,500.0	1,467.9	1,501.1	1,497.4	5.4	2.9	171.49	26.8	38.1	228.8	223.5	5.32	42.989		
1,600.0	1,563.6	1,603.3	1,598.2	5.9	3.2	170.41	41.0	47.2	244.1	238.3	5.77	42.327		
1,700.0	1,659.2	1,702.1	1,695.5	6.5	3.6	169.40	55.5	56.5	258.7	252.4	6.22	41.598		
1,800.0	1,754.8	1,801.0	1,792.8	7.0	3.9	168.49	69.9	65.7	273.3	266.7	6.68	40.901		
1,900.0	1,850.4	1,899.8	1,890.2	7.5	4.2	167.67	84.4	74.9	288.1	280.9	7.16	40.241		
2,000.0	1,946.1	1,998.6	1,987.5	8.1	4.5	166.94	98.9	84.2	302.8	295.2	7.64	39.619		
2,100.0	2,041.7	2,097.5	2,084.8	8.6	4.8	166.27	113.3	93.4	317.7	309.5	8.14	39.035		
2,200.0	2,137.3	2,196.3	2,182.2	9.1	5.2	165.66	127.8	102.7	332.5	323.9	8.64	38.489		
2,300.0	2,233.0	2,295.1	2,279.5	9.7	5.5	165.11	142.2	111.9	347.4	338.3	9.15	37.978		
2,400.0	2,328.6	2,393.9	2,376.8	10.2	5.8	164.60	156.7	121.2	362.4	352.7	9.66	37.502		
2,500.0	2,424.2	2,492.8	2,474.1	10.8	6.2	164.13	171.1	130.4	377.3	367.1	10.18	37.057		
2,600.0	2,519.9	2,591.6	2,571.5	11.3	6.5	163.69	185.6	139.7	392.3	381.6	10.71	36.641		
2,700.0	2,615.5	2,690.4	2,668.8	11.8	6.8	163.29	200.1	148.9	407.3	396.1	11.23	36.253		
2,800.0	2,711.1	2,789.3	2,766.1	12.4	7.2	162.92	214.5	158.2	422.3	410.5	11.77	35.890		
2,900.0	2,806.7	2,888.1	2,863.5	12.9	7.5	162.57	229.0	167.4	437.3	425.0	12.30	35.550		
3,000.0	2,902.4	2,986.9	2,960.8	13.4	7.9	162.24	243.4	176.7	452.4	439.6	12.84	35.231		
3,100.0	2,998.0	3,084.5	3,056.9	14.0	8.2	161.95	257.7	185.8	467.5	454.1	13.38	34.947		
3,200.0	3,093.6	3,177.5	3,148.6	14.5	8.5	161.76	270.4	193.9	483.4	469.5	13.87	34.846		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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 S4-T3N-R68W (Peppler Farms) - Peppler Farms 1E-4H - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							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	-40.1	0.0	40.1					
100.0	100.0	98.0	98.0	0.2	0.1	-180.00	-40.1	0.0	40.1	39.8	0.30	133.297		
200.0	200.0	198.0	198.0	0.3	0.3	-180.00	-40.1	0.0	40.1	39.4	0.65	61.725	CC, ES	
300.0	300.0	298.0	298.0	0.5	0.5	171.37	-40.1	0.0	41.8	40.8	1.00	41.883		
400.0	399.8	397.8	397.8	0.7	0.7	172.31	-40.1	0.0	47.0	45.6	1.35	34.908		
500.0	499.5	497.5	497.5	0.9	0.8	173.49	-40.1	0.0	55.6	53.9	1.69	32.879	SF	
600.0	598.7	596.7	596.7	1.2	1.0	174.64	-40.1	0.0	67.8	65.7	2.04	33.286		
700.0	697.5	695.5	695.5	1.5	1.2	175.62	-40.1	0.0	83.3	81.0	2.38	35.083		
800.0	795.6	793.6	793.6	1.9	1.4	176.41	-40.1	0.0	102.4	99.7	2.71	37.756		
900.0	893.1	891.7	891.7	2.3	1.5	176.71	-39.9	0.7	124.6	121.5	3.04	40.920		
1,000.0	889.6	889.3	889.2	2.8	1.7	176.36	-39.4	3.0	149.7	146.3	3.38	44.318		
1,100.0	1,085.4	1,086.3	1,086.2	3.3	1.9	175.66	-38.4	7.0	177.1	173.4	3.72	47.613		
1,200.0	1,181.0	1,183.4	1,183.1	3.8	2.1	174.72	-37.1	12.5	204.6	200.5	4.08	50.094		
1,300.0	1,276.7	1,280.7	1,280.1	4.3	2.3	173.59	-35.4	19.6	231.6	227.1	4.46	51.890		
1,400.0	1,372.3	1,378.0	1,377.1	4.9	2.5	172.34	-33.3	28.3	258.2	253.4	4.86	53.097		
1,500.0	1,467.9	1,475.5	1,473.9	5.4	2.7	170.98	-30.9	38.7	284.6	279.3	5.29	53.788		
1,600.0	1,563.6	1,572.9	1,570.5	5.9	2.9	169.55	-28.0	50.6	310.7	304.9	5.75	54.028		
1,700.0	1,659.2	1,669.4	1,666.2	6.5	3.2	168.15	-24.9	63.6	336.7	330.4	6.23	54.008		
1,800.0	1,754.8	1,765.7	1,761.5	7.0	3.4	166.94	-21.8	76.7	362.8	356.1	6.73	53.897		
1,900.0	1,850.4	1,861.9	1,856.8	7.5	3.7	165.89	-18.7	89.7	389.1	381.9	7.24	53.729		
2,000.0	1,946.1	1,958.2	1,952.1	8.1	3.9	164.97	-15.6	102.7	415.5	407.8	7.76	53.530		
2,100.0	2,041.7	2,054.4	2,047.4	8.6	4.2	164.17	-12.5	115.8	442.0	433.8	8.29	53.314		
2,200.0	2,137.3	2,150.7	2,142.7	9.1	4.5	163.45	-9.4	128.8	468.6	459.8	8.83	53.093		
2,300.0	2,233.0	2,246.9	2,238.1	9.7	4.7	162.81	-6.3	141.8	495.2	485.9	9.37	52.873		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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 S4-T3N-R68W (Peppler Farms) - Peppler Farms 1F-4H - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							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	-51.0	0.0	51.0					
100.0	100.0	98.0	98.0	0.2	0.1	180.00	-51.0	0.0	51.0	50.7	0.30	169.647		
200.0	200.0	198.0	198.0	0.3	0.3	180.00	-51.0	0.0	51.0	50.4	0.65	78.557	CC, ES	
300.0	300.0	298.0	298.0	0.5	0.5	171.29	-51.0	0.0	52.7	51.7	1.00	52.833		
400.0	399.8	397.8	397.8	0.7	0.7	172.06	-51.0	0.0	57.9	56.6	1.35	43.026		
500.0	499.5	497.5	497.5	0.9	0.8	173.08	-51.0	0.0	66.6	64.9	1.69	39.330		
600.0	598.7	596.7	596.7	1.2	1.0	174.12	-51.0	0.0	78.7	76.6	2.04	38.639	SF	
700.0	697.5	694.3	694.3	1.5	1.2	174.76	-51.6	0.4	94.8	92.5	2.37	39.945		
800.0	795.6	790.7	790.6	1.9	1.4	174.81	-53.6	1.8	115.7	113.0	2.71	42.716		
900.0	893.1	885.7	885.6	2.3	1.5	174.53	-56.8	4.1	141.3	138.3	3.04	46.445		
1,000.0	989.6	979.0	978.8	2.8	1.7	174.10	-61.3	7.2	171.4	168.0	3.37	50.829		
1,100.0	1,085.4	1,070.6	1,070.1	3.3	1.9	173.62	-66.8	11.1	205.6	201.9	3.71	55.405		
1,200.0	1,181.0	1,161.2	1,160.3	3.8	2.1	173.09	-73.5	15.8	241.4	237.4	4.06	59.410		
1,300.0	1,276.7	1,250.8	1,249.4	4.3	2.3	172.51	-81.2	21.2	278.4	274.0	4.42	62.962		
1,400.0	1,372.3	1,339.5	1,337.4	4.9	2.5	171.91	-90.0	27.3	316.6	311.8	4.79	66.143		
1,500.0	1,467.9	1,427.2	1,424.3	5.4	2.7	171.29	-99.8	34.2	355.9	350.7	5.16	69.012		
1,600.0	1,563.6	1,513.9	1,510.0	5.9	3.0	170.68	-110.6	41.7	396.4	390.9	5.54	71.620		
1,700.0	1,659.2	1,600.0	1,594.9	6.5	3.2	170.08	-122.3	49.9	438.1	432.2	5.92	73.993		
1,800.0	1,754.8	1,690.1	1,683.6	7.0	3.5	169.50	-135.1	58.9	480.4	474.0	6.32	76.008		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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 S4-T3N-R68W (Peppler Farms) - Peppler Farms 1G-4H - Hz - Plan #1												Offset Site Error: 0.0 ft	
Survey Program: 0-MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
							+N/-S (ft)	+E/-W (ft)					
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-61.9	0.0	62.0				
100.0	100.0	98.0	98.0	0.2	0.1	180.00	-61.9	0.0	61.9	61.6	0.30	205.996	
200.0	200.0	198.0	198.0	0.3	0.3	180.00	-61.9	0.0	61.9	61.3	0.65	95.390 CC, ES	
300.0	300.0	298.0	298.0	0.5	0.5	171.24	-61.9	0.0	63.7	62.7	1.00	63.783	
400.0	399.8	397.8	397.8	0.7	0.7	171.89	-61.9	0.0	68.8	67.5	1.35	51.144	
500.0	499.5	496.2	496.2	0.9	0.8	172.54	-62.7	0.3	78.2	76.5	1.69	46.286	
600.0	598.7	593.8	593.8	1.2	1.0	172.91	-65.0	1.1	92.7	90.6	2.03	45.599 SF	
700.0	697.5	690.3	690.2	1.5	1.2	173.04	-68.8	2.5	112.0	109.7	2.37	47.262	
800.0	795.6	785.4	785.1	1.9	1.4	173.02	-74.1	4.4	136.3	133.6	2.71	50.377	
900.0	893.1	878.8	878.3	2.3	1.6	172.91	-80.7	6.8	165.4	162.4	3.04	54.453	
1,000.0	989.6	970.2	969.3	2.8	1.8	172.75	-88.6	9.7	199.2	195.8	3.36	59.195	
1,100.0	1,085.4	1,059.6	1,058.1	3.3	2.0	172.61	-97.6	13.0	237.2	233.5	3.70	64.131	
1,200.0	1,181.0	1,147.7	1,145.6	3.8	2.2	172.44	-107.7	16.7	276.9	272.8	4.04	68.503	
1,300.0	1,276.7	1,234.7	1,231.8	4.3	2.4	172.22	-119.0	20.8	317.9	313.5	4.39	72.463	
1,400.0	1,372.3	1,320.6	1,316.6	4.9	2.7	171.97	-131.3	25.2	360.2	355.4	4.73	76.090	
1,500.0	1,467.9	1,405.7	1,400.5	5.4	3.0	171.69	-144.7	30.1	403.7	398.6	5.08	79.438	
1,600.0	1,563.6	1,495.4	1,488.9	5.9	3.2	171.43	-159.3	35.4	447.8	442.3	5.44	82.302	
1,700.0	1,659.2	1,585.2	1,577.3	6.5	3.5	171.21	-173.9	40.8	491.9	486.1	5.80	84.794	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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 S4-T3N-R68W (Peppler Farms) - Peppler Farms 1H-4H - Hz - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-72.9	0.0	72.9				
100.0	100.0	98.0	98.0	0.2	0.1	180.00	-72.9	0.0	72.9	72.6	0.30	242.346	
200.0	200.0	198.0	198.0	0.3	0.3	180.00	-72.9	0.0	72.9	72.2	0.65	112.222 CC, ES	
300.0	300.0	296.8	296.8	0.5	0.5	171.02	-73.6	0.2	75.4	74.4	1.00	75.686	
400.0	399.8	395.2	395.1	0.7	0.7	171.08	-76.1	0.9	83.0	81.7	1.34	61.860	
500.0	499.5	492.9	492.8	0.9	0.9	171.13	-80.1	2.1	95.7	94.0	1.69	56.755	
600.0	598.7	589.6	589.3	1.2	1.0	171.18	-85.6	3.7	113.4	111.3	2.03	55.915 SF	
700.0	697.5	685.0	684.4	1.5	1.3	171.22	-92.6	5.7	136.0	133.6	2.37	57.477	
800.0	795.6	778.8	777.8	1.9	1.5	171.23	-100.9	8.1	163.5	160.8	2.70	60.526	
900.0	893.1	870.7	869.2	2.3	1.7	171.22	-110.5	10.9	195.8	192.8	3.03	64.557	
1,000.0	989.6	960.4	958.2	2.8	1.9	171.20	-121.3	14.0	232.8	229.4	3.36	69.272	
1,100.0	1,085.4	1,047.8	1,044.8	3.3	2.2	171.21	-133.0	17.4	273.9	270.2	3.69	74.169	
1,200.0	1,181.0	1,134.0	1,129.8	3.8	2.4	171.20	-145.8	21.1	316.7	312.6	4.03	78.496	
1,300.0	1,276.7	1,218.9	1,213.6	4.3	2.7	171.13	-159.7	25.1	360.8	356.4	4.38	82.435	
1,400.0	1,372.3	1,302.9	1,296.1	4.9	3.0	171.02	-174.5	29.3	406.1	401.4	4.72	86.059	
1,500.0	1,467.9	1,391.7	1,383.3	5.4	3.3	170.90	-190.8	34.0	452.1	447.0	5.07	89.135	
1,600.0	1,563.6	1,480.5	1,470.4	5.9	3.7	170.81	-207.1	38.7	498.0	492.6	5.42	91.798	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Peppler Farms 1A-4H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5068.0ft (Ensign)
Reference Site:	S4-T3N-R68W (Peppler Farms)	MD Reference:	WELL @ 5068.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Peppler Farms 1A-4H	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 @ 5068.0ft (Ensign)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Peppler Farms 1A-4H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.32°

