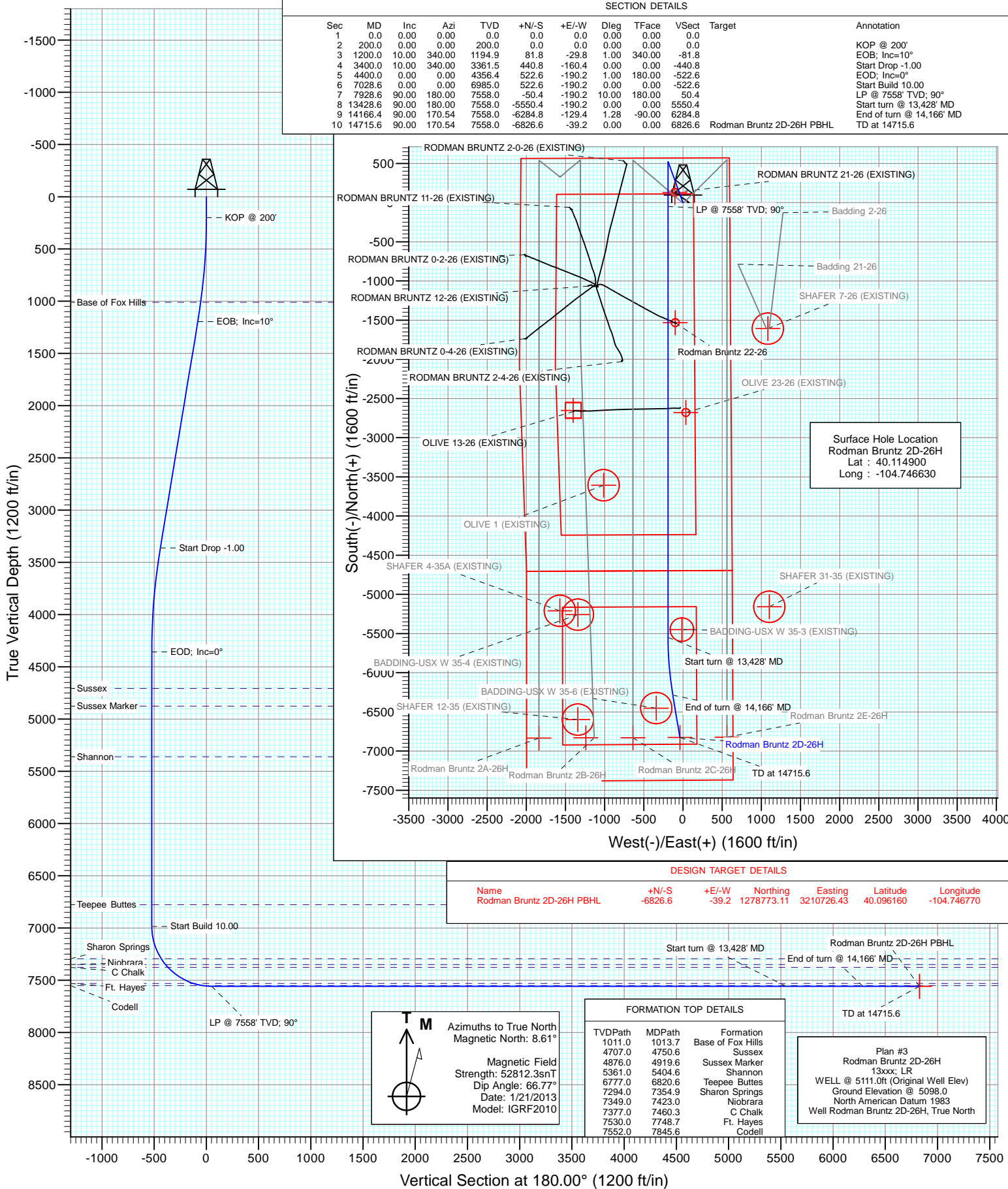




Project: DJ Wattenberg
Site: S26-T2N-R66W (Rodman Bruntz)
Well: Rodman Bruntz 2D-26H
Wellbore: Hz
Design: Plan #3



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site:	S26-T2N-R66W (Rodman Bruntz)	North Reference:	True
Well:	Rodman Bruntz 2D-26H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

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		S26-T2N-R66W (Rodman Bruntz)			
Site Position:		Northing:	1,285,917.94 ft	Latitude:	40.115810
From:	Lat/Long	Easting:	3,209,130.25 ft	Longitude:	-104.752260
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.48 °

Well	Rodman Bruntz 2D-26H					
Well Position	+N/-S	0.0 ft	Northing:	1,285,599.76 ft	Latitude:	40.114900
	+E/-W	0.0 ft	Easting:	3,210,707.60 ft	Longitude:	-104.746630
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,098.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	1/21/2013	8.61	66.77	52,812

Design	Plan #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	180.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	10.00	340.00	1,194.9	81.8	-29.8	1.00	1.00	0.00	340.00	
3,400.0	10.00	340.00	3,361.5	440.8	-160.4	0.00	0.00	0.00	0.00	
4,400.0	0.00	0.00	4,356.4	522.6	-190.2	1.00	-1.00	0.00	180.00	
7,028.6	0.00	0.00	6,985.0	522.6	-190.2	0.00	0.00	0.00	0.00	
7,928.6	90.00	180.00	7,558.0	-50.4	-190.2	10.00	10.00	0.00	180.00	
13,428.6	90.00	180.00	7,558.0	-5,550.4	-190.2	0.00	0.00	0.00	0.00	
14,166.4	90.00	170.54	7,558.0	-6,284.8	-129.4	1.28	0.00	-1.28	-90.00	
14,715.6	90.00	170.54	7,558.0	-6,826.6	-39.2	0.00	0.00	0.00	0.00	Rodman Bruntz 2D-26H

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site:	S26-T2N-R66W (Rodman Bruntz)	North Reference:	True
Well:	Rodman Bruntz 2D-26H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
300.0	1.00	340.00	300.0	0.8	-0.3	-0.8	1.00	1.00	
400.0	2.00	340.00	400.0	3.3	-1.2	-3.3	1.00	1.00	
500.0	3.00	340.00	499.9	7.4	-2.7	-7.4	1.00	1.00	
600.0	4.00	340.00	599.7	13.1	-4.8	-13.1	1.00	1.00	
700.0	5.00	340.00	699.4	20.5	-7.5	-20.5	1.00	1.00	
800.0	6.00	340.00	798.9	29.5	-10.7	-29.5	1.00	1.00	
900.0	7.00	340.00	898.3	40.1	-14.6	-40.1	1.00	1.00	
1,000.0	8.00	340.00	997.4	52.4	-19.1	-52.4	1.00	1.00	
1,013.7	8.14	340.00	1,011.0	54.2	-19.7	-54.2	1.00	1.00	Base of Fox Hills
1,100.0	9.00	340.00	1,096.3	66.3	-24.1	-66.3	1.00	1.00	
1,200.0	10.00	340.00	1,194.9	81.8	-29.8	-81.8	1.00	1.00	EOB; Inc=10°
1,300.0	10.00	340.00	1,293.4	98.1	-35.7	-98.1	0.00	0.00	
1,400.0	10.00	340.00	1,391.9	114.4	-41.6	-114.4	0.00	0.00	
1,500.0	10.00	340.00	1,490.4	130.7	-47.6	-130.7	0.00	0.00	
1,600.0	10.00	340.00	1,588.9	147.1	-53.5	-147.1	0.00	0.00	
1,700.0	10.00	340.00	1,687.3	163.4	-59.5	-163.4	0.00	0.00	
1,800.0	10.00	340.00	1,785.8	179.7	-65.4	-179.7	0.00	0.00	
1,900.0	10.00	340.00	1,884.3	196.0	-71.3	-196.0	0.00	0.00	
2,000.0	10.00	340.00	1,982.8	212.3	-77.3	-212.3	0.00	0.00	
2,100.0	10.00	340.00	2,081.3	228.7	-83.2	-228.7	0.00	0.00	
2,200.0	10.00	340.00	2,179.7	245.0	-89.2	-245.0	0.00	0.00	
2,300.0	10.00	340.00	2,278.2	261.3	-95.1	-261.3	0.00	0.00	
2,400.0	10.00	340.00	2,376.7	277.6	-101.0	-277.6	0.00	0.00	
2,500.0	10.00	340.00	2,475.2	293.9	-107.0	-293.9	0.00	0.00	
2,600.0	10.00	340.00	2,573.7	310.2	-112.9	-310.2	0.00	0.00	
2,700.0	10.00	340.00	2,672.1	326.6	-118.9	-326.6	0.00	0.00	
2,800.0	10.00	340.00	2,770.6	342.9	-124.8	-342.9	0.00	0.00	
2,900.0	10.00	340.00	2,869.1	359.2	-130.7	-359.2	0.00	0.00	
3,000.0	10.00	340.00	2,967.6	375.5	-136.7	-375.5	0.00	0.00	
3,100.0	10.00	340.00	3,066.1	391.8	-142.6	-391.8	0.00	0.00	
3,200.0	10.00	340.00	3,164.5	408.1	-148.6	-408.1	0.00	0.00	
3,300.0	10.00	340.00	3,263.0	424.5	-154.5	-424.5	0.00	0.00	
3,400.0	10.00	340.00	3,361.5	440.8	-160.4	-440.8	0.00	0.00	Start Drop -1.00
3,500.0	9.00	340.00	3,460.1	456.3	-166.1	-456.3	1.00	-1.00	
3,600.0	8.00	340.00	3,559.0	470.2	-171.1	-470.2	1.00	-1.00	
3,700.0	7.00	340.00	3,658.2	482.4	-175.6	-482.4	1.00	-1.00	
3,800.0	6.00	340.00	3,757.5	493.1	-179.5	-493.1	1.00	-1.00	
3,900.0	5.00	340.00	3,857.1	502.1	-182.7	-502.1	1.00	-1.00	
4,000.0	4.00	340.00	3,956.8	509.5	-185.4	-509.5	1.00	-1.00	
4,100.0	3.00	340.00	4,056.6	515.2	-187.5	-515.2	1.00	-1.00	
4,200.0	2.00	340.00	4,156.5	519.3	-189.0	-519.3	1.00	-1.00	
4,300.0	1.00	340.00	4,256.4	521.8	-189.9	-521.8	1.00	-1.00	
4,400.0	0.00	0.00	4,356.4	522.6	-190.2	-522.6	1.00	-1.00	EOD; Inc=0°
4,500.0	0.00	0.00	4,456.4	522.6	-190.2	-522.6	0.00	0.00	
4,600.0	0.00	0.00	4,556.4	522.6	-190.2	-522.6	0.00	0.00	
4,700.0	0.00	0.00	4,656.4	522.6	-190.2	-522.6	0.00	0.00	
4,750.6	0.00	0.00	4,707.0	522.6	-190.2	-522.6	0.00	0.00	Sussex
4,800.0	0.00	0.00	4,756.4	522.6	-190.2	-522.6	0.00	0.00	
4,900.0	0.00	0.00	4,856.4	522.6	-190.2	-522.6	0.00	0.00	

Cathedral Energy Services

Planning Report

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Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site:	S26-T2N-R66W (Rodman Bruntz)	North Reference:	True
Well:	Rodman Bruntz 2D-26H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

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
4,919.6	0.00	0.00	4,876.0	522.6	-190.2	-522.6	0.00	0.00	Sussex Marker
5,000.0	0.00	0.00	4,956.4	522.6	-190.2	-522.6	0.00	0.00	
5,100.0	0.00	0.00	5,056.4	522.6	-190.2	-522.6	0.00	0.00	
5,200.0	0.00	0.00	5,156.4	522.6	-190.2	-522.6	0.00	0.00	
5,300.0	0.00	0.00	5,256.4	522.6	-190.2	-522.6	0.00	0.00	
5,400.0	0.00	0.00	5,356.4	522.6	-190.2	-522.6	0.00	0.00	
5,404.6	0.00	0.00	5,361.0	522.6	-190.2	-522.6	0.00	0.00	Shannon
5,500.0	0.00	0.00	5,456.4	522.6	-190.2	-522.6	0.00	0.00	
5,600.0	0.00	0.00	5,556.4	522.6	-190.2	-522.6	0.00	0.00	
5,700.0	0.00	0.00	5,656.4	522.6	-190.2	-522.6	0.00	0.00	
5,800.0	0.00	0.00	5,756.4	522.6	-190.2	-522.6	0.00	0.00	
5,900.0	0.00	0.00	5,856.4	522.6	-190.2	-522.6	0.00	0.00	
6,000.0	0.00	0.00	5,956.4	522.6	-190.2	-522.6	0.00	0.00	
6,100.0	0.00	0.00	6,056.4	522.6	-190.2	-522.6	0.00	0.00	
6,200.0	0.00	0.00	6,156.4	522.6	-190.2	-522.6	0.00	0.00	
6,300.0	0.00	0.00	6,256.4	522.6	-190.2	-522.6	0.00	0.00	
6,400.0	0.00	0.00	6,356.4	522.6	-190.2	-522.6	0.00	0.00	
6,500.0	0.00	0.00	6,456.4	522.6	-190.2	-522.6	0.00	0.00	
6,600.0	0.00	0.00	6,556.4	522.6	-190.2	-522.6	0.00	0.00	
6,700.0	0.00	0.00	6,656.4	522.6	-190.2	-522.6	0.00	0.00	
6,800.0	0.00	0.00	6,756.4	522.6	-190.2	-522.6	0.00	0.00	
6,820.6	0.00	0.00	6,777.0	522.6	-190.2	-522.6	0.00	0.00	Teepee Buttes
6,900.0	0.00	0.00	6,856.4	522.6	-190.2	-522.6	0.00	0.00	
7,000.0	0.00	0.00	6,956.4	522.6	-190.2	-522.6	0.00	0.00	
7,028.6	0.00	0.00	6,985.0	522.6	-190.2	-522.6	0.00	0.00	Start Build 10.00
7,100.0	7.14	180.00	7,056.3	518.1	-190.2	-518.1	10.00	10.00	
7,200.0	17.14	180.00	7,153.9	497.1	-190.2	-497.1	10.00	10.00	
7,300.0	27.14	180.00	7,246.4	459.5	-190.2	-459.5	10.00	10.00	
7,354.9	32.63	180.00	7,294.0	432.1	-190.2	-432.1	10.00	10.00	
7,400.0	37.14	180.00	7,331.0	406.4	-190.2	-406.4	10.00	10.00	
7,423.0	39.44	180.00	7,349.0	392.1	-190.2	-392.1	10.00	10.00	Niobrara C Chalk
7,460.3	43.17	180.00	7,377.0	367.5	-190.2	-367.5	10.00	10.00	
7,500.0	47.14	180.00	7,405.0	339.4	-190.2	-339.4	10.00	10.00	
7,600.0	57.14	180.00	7,466.3	260.5	-190.2	-260.5	10.00	10.00	
7,700.0	67.14	180.00	7,513.0	172.2	-190.2	-172.2	10.00	10.00	
7,748.7	72.01	180.00	7,530.0	126.5	-190.2	-126.5	10.00	10.00	
7,800.0	77.14	180.00	7,543.6	77.1	-190.2	-77.1	10.00	10.00	Ft. Hayes
7,845.6	81.70	180.00	7,552.0	32.3	-190.2	-32.3	10.00	10.00	
7,900.0	87.14	180.00	7,557.3	-21.8	-190.2	21.8	10.00	10.00	
7,928.6	90.00	180.00	7,558.0	-50.4	-190.2	50.4	10.00	10.00	LP @ 7558' TVD; 90°
8,000.0	90.00	180.00	7,558.0	-121.8	-190.2	121.8	0.00	0.00	
8,100.0	90.00	180.00	7,558.0	-221.8	-190.2	221.8	0.00	0.00	
8,200.0	90.00	180.00	7,558.0	-321.8	-190.2	321.8	0.00	0.00	
8,300.0	90.00	180.00	7,558.0	-421.8	-190.2	421.8	0.00	0.00	
8,400.0	90.00	180.00	7,558.0	-521.8	-190.2	521.8	0.00	0.00	
8,500.0	90.00	180.00	7,558.0	-621.8	-190.2	621.8	0.00	0.00	
8,600.0	90.00	180.00	7,558.0	-721.8	-190.2	721.8	0.00	0.00	
8,700.0	90.00	180.00	7,558.0	-821.8	-190.2	821.8	0.00	0.00	
8,800.0	90.00	180.00	7,558.0	-921.8	-190.2	921.8	0.00	0.00	
8,900.0	90.00	180.00	7,558.0	-1,021.8	-190.2	1,021.8	0.00	0.00	
9,000.0	90.00	180.00	7,558.0	-1,121.8	-190.2	1,121.8	0.00	0.00	
9,100.0	90.00	180.00	7,558.0	-1,221.8	-190.2	1,221.8	0.00	0.00	

Cathedral Energy Services

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Site:	S26-T2N-R66W (Rodman Bruntz)	North Reference:	True
Well:	Rodman Bruntz 2D-26H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

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	180.00	7,558.0	-1,321.8	-190.2	1,321.8	0.00	0.00	
9,300.0	90.00	180.00	7,558.0	-1,421.8	-190.2	1,421.8	0.00	0.00	
9,400.0	90.00	180.00	7,558.0	-1,521.8	-190.2	1,521.8	0.00	0.00	
9,500.0	90.00	180.00	7,558.0	-1,621.8	-190.2	1,621.8	0.00	0.00	
9,600.0	90.00	180.00	7,558.0	-1,721.8	-190.2	1,721.8	0.00	0.00	
9,700.0	90.00	180.00	7,558.0	-1,821.8	-190.2	1,821.8	0.00	0.00	
9,800.0	90.00	180.00	7,558.0	-1,921.8	-190.2	1,921.8	0.00	0.00	
9,900.0	90.00	180.00	7,558.0	-2,021.8	-190.2	2,021.8	0.00	0.00	
10,000.0	90.00	180.00	7,558.0	-2,121.8	-190.2	2,121.8	0.00	0.00	
10,100.0	90.00	180.00	7,558.0	-2,221.8	-190.2	2,221.8	0.00	0.00	
10,200.0	90.00	180.00	7,558.0	-2,321.8	-190.2	2,321.8	0.00	0.00	
10,300.0	90.00	180.00	7,558.0	-2,421.8	-190.2	2,421.8	0.00	0.00	
10,400.0	90.00	180.00	7,558.0	-2,521.8	-190.2	2,521.8	0.00	0.00	
10,500.0	90.00	180.00	7,558.0	-2,621.8	-190.2	2,621.8	0.00	0.00	
10,600.0	90.00	180.00	7,558.0	-2,721.8	-190.2	2,721.8	0.00	0.00	
10,700.0	90.00	180.00	7,558.0	-2,821.8	-190.2	2,821.8	0.00	0.00	
10,800.0	90.00	180.00	7,558.0	-2,921.8	-190.2	2,921.8	0.00	0.00	
10,900.0	90.00	180.00	7,558.0	-3,021.8	-190.2	3,021.8	0.00	0.00	
11,000.0	90.00	180.00	7,558.0	-3,121.8	-190.2	3,121.8	0.00	0.00	
11,100.0	90.00	180.00	7,558.0	-3,221.8	-190.2	3,221.8	0.00	0.00	
11,200.0	90.00	180.00	7,558.0	-3,321.8	-190.2	3,321.8	0.00	0.00	
11,300.0	90.00	180.00	7,558.0	-3,421.8	-190.2	3,421.8	0.00	0.00	
11,400.0	90.00	180.00	7,558.0	-3,521.8	-190.2	3,521.8	0.00	0.00	
11,500.0	90.00	180.00	7,558.0	-3,621.8	-190.2	3,621.8	0.00	0.00	
11,600.0	90.00	180.00	7,558.0	-3,721.8	-190.2	3,721.8	0.00	0.00	
11,700.0	90.00	180.00	7,558.0	-3,821.8	-190.2	3,821.8	0.00	0.00	
11,800.0	90.00	180.00	7,558.0	-3,921.8	-190.2	3,921.8	0.00	0.00	
11,900.0	90.00	180.00	7,558.0	-4,021.8	-190.2	4,021.8	0.00	0.00	
12,000.0	90.00	180.00	7,558.0	-4,121.8	-190.2	4,121.8	0.00	0.00	
12,100.0	90.00	180.00	7,558.0	-4,221.8	-190.2	4,221.8	0.00	0.00	
12,200.0	90.00	180.00	7,558.0	-4,321.8	-190.2	4,321.8	0.00	0.00	
12,300.0	90.00	180.00	7,558.0	-4,421.8	-190.2	4,421.8	0.00	0.00	
12,400.0	90.00	180.00	7,558.0	-4,521.8	-190.2	4,521.8	0.00	0.00	
12,500.0	90.00	180.00	7,558.0	-4,621.8	-190.2	4,621.8	0.00	0.00	
12,600.0	90.00	180.00	7,558.0	-4,721.8	-190.2	4,721.8	0.00	0.00	
12,700.0	90.00	180.00	7,558.0	-4,821.8	-190.2	4,821.8	0.00	0.00	
12,800.0	90.00	180.00	7,558.0	-4,921.8	-190.2	4,921.8	0.00	0.00	
12,900.0	90.00	180.00	7,558.0	-5,021.8	-190.2	5,021.8	0.00	0.00	
13,000.0	90.00	180.00	7,558.0	-5,121.8	-190.2	5,121.8	0.00	0.00	
13,100.0	90.00	180.00	7,558.0	-5,221.8	-190.2	5,221.8	0.00	0.00	
13,200.0	90.00	180.00	7,558.0	-5,321.8	-190.2	5,321.8	0.00	0.00	
13,300.0	90.00	180.00	7,558.0	-5,421.8	-190.2	5,421.8	0.00	0.00	
13,400.0	90.00	180.00	7,558.0	-5,521.8	-190.2	5,521.8	0.00	0.00	
13,428.6	90.00	180.00	7,558.0	-5,550.4	-190.2	5,550.4	0.00	0.00	Start turn @ 13,428' MD
13,500.0	90.00	179.08	7,558.0	-5,621.8	-189.6	5,621.8	1.28	0.00	
13,600.0	90.00	177.80	7,558.0	-5,721.7	-186.9	5,721.7	1.28	0.00	
13,700.0	90.00	176.52	7,558.0	-5,821.6	-182.0	5,821.6	1.28	0.00	
13,800.0	90.00	175.24	7,558.0	-5,921.4	-174.8	5,921.4	1.28	0.00	
13,900.0	90.00	173.96	7,558.0	-6,020.9	-165.4	6,020.9	1.28	0.00	
14,000.0	90.00	172.67	7,558.0	-6,120.2	-153.7	6,120.2	1.28	0.00	
14,100.0	90.00	171.39	7,558.0	-6,219.3	-139.9	6,219.3	1.28	0.00	
14,166.4	90.00	170.54	7,558.0	-6,284.8	-129.4	6,284.8	1.28	0.00	End of turn @ 14,166' MD

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site:	S26-T2N-R66W (Rodman Bruntz)	North Reference:	True
Well:	Rodman Bruntz 2D-26H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #3		

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
14,200.0	90.00	170.54	7,558.0	-6,318.0	-123.9	6,318.0	0.00	0.00	
14,300.0	90.00	170.54	7,558.0	-6,416.6	-107.5	6,416.6	0.00	0.00	
14,400.0	90.00	170.54	7,558.0	-6,515.3	-91.0	6,515.3	0.00	0.00	
14,500.0	90.00	170.54	7,558.0	-6,613.9	-74.6	6,613.9	0.00	0.00	
14,600.0	90.00	170.54	7,558.0	-6,712.5	-58.2	6,712.5	0.00	0.00	
14,700.0	90.00	170.54	7,558.0	-6,811.2	-41.7	6,811.2	0.00	0.00	
14,715.6	90.00	170.54	7,558.0	-6,826.6	-39.2	6,826.6	0.00	0.00	TD at 14715.6 - Rodman Bruntz 2D-26H 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
Rodman Bruntz 2D-26H - plan hits target center - Point	0.00	0.00	7,558.0	-6,826.6	-39.2	1,278,773.11	3,210,726.43	40.096160	-104.746770

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,013.7	1,011.0	Base of Fox Hills			
4,750.6	4,707.0	Sussex			
4,919.6	4,876.0	Sussex Marker			
5,404.6	5,361.0	Shannon			
6,820.6	6,777.0	Teepee Buttes			
7,354.9	7,294.0	Sharon Springs			
7,423.0	7,349.0	Niobrara			
7,460.3	7,377.0	C Chalk			
7,748.7	7,530.0	Ft. Hayes			
7,845.6	7,552.0	Codell			

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'
1,200.0	1,194.9	81.8	-29.8	EOB; Inc=10°
3,400.0	3,361.5	440.8	-160.4	Start Drop -1.00
4,400.0	4,356.4	522.6	-190.2	EOD; Inc=0°
7,028.6	6,985.0	522.6	-190.2	Start Build 10.00
7,928.6	7,558.0	-50.4	-190.2	LP @ 7558' TVD; 90°
13,428.6	7,558.0	-5,550.4	-190.2	Start turn @ 13,428' MD
14,166.4	7,558.0	-6,284.8	-129.4	End of turn @ 14,166' MD
14,715.6	7,558.0	-6,826.6	-39.2	TD at 14715.6

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S26-T2N-R66W (Rodman Bruntz)

Rodman Bruntz 2D-26H

Hz

Plan #3

Anticollision Report

13 May, 2013

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3		
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	5/13/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,715.6	Plan #3 (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
S26-T2N-R66W (Rodman Bruntz)						
Badding 21-26 - DD - Plan #1						Out of range
Badding 2-26 - DD - Plan #1						Out of range
BADDING-USX W 35-3 (EXISTING) - Existing - Existing	13,327.8	7,558.0	176.2	64.7	1.580	CC, ES, SF
BADDING-USX W 35-4 (EXISTING) - Existing - Existing						Out of range
BADDING-USX W 35-6 (EXISTING) - Existing - Existing	14,295.8	7,561.0	236.4	109.9	1.869	CC
BADDING-USX W 35-6 (EXISTING) - Existing - Existing	14,300.0	7,561.0	236.4	109.8	1.868	ES, SF
OLIVE 1 (EXISTING) - Existing - Existing						Out of range
OLIVE 13-26 (EXISTING) - Existing - Existing						Out of range
OLIVE 23-26 (EXISTING) - Existing - Existing	10,556.8	7,535.0	226.8	163.1	3.556	CC, ES, SF
RODMAN BRUNTZ 0-2-26 (EXISTING) - Existing - Exist						Out of range
RODMAN BRUNTZ 0-4-26 (EXISTING) - DD - DD						Out of range
RODMAN BRUNTZ 11-26 (EXISTING) - Existing - Existin						Out of range
RODMAN BRUNTZ 12-26 (EXISTING) - Existing - Existin						Out of range
RODMAN BRUNTZ 2-0-26 (EXISTING) - Existing - Exist						Out of range
RODMAN BRUNTZ 21-26 (EXISTING) - Existing - Existin	365.9	352.5	59.3	58.4	63.895	CC
RODMAN BRUNTZ 21-26 (EXISTING) - Existing - Existin	400.0	386.4	59.4	58.4	58.289	ES
RODMAN BRUNTZ 21-26 (EXISTING) - Existing - Existin	7,766.6	7,532.4	112.7	92.4	5.552	SF
Rodman Bruntz 22-26 - DD - SURVEYS	9,409.1	7,685.0	84.6	37.1	1.781	CC, ES, SF
RODMAN BRUNTZ 2-4-26 (EXISTING) - Existing - Exist						Out of range
Rodman Bruntz 2A-26H - DD - Plan #1						Out of range
Rodman Bruntz 2B-26H - Hz - Plan #1						Out of range
Rodman Bruntz 2C-26H - Hz - Plan #1	381.8	380.8	7.9	6.6	6.103	CC
Rodman Bruntz 2C-26H - Hz - Plan #1	400.0	399.0	7.9	6.5	5.831	ES
Rodman Bruntz 2C-26H - Hz - Plan #1	13,700.0	13,510.9	495.5	303.0	2.574	SF
Rodman Bruntz 2E-26H - Hz - Plan #1	200.0	200.0	11.2	10.5	17.139	CC, ES
Rodman Bruntz 2E-26H - Hz - Plan #1	400.0	399.7	14.9	13.5	10.948	SF
SHAHER 12-35 (EXISTING) - Existing - Existing						Out of range
SHAHER 31-35 (EXISTING) - Existing - Existing						Out of range
SHAHER 4-35A (EXISTING) - Existing - Existing						Out of range
SHAHER 7-26 (EXISTING) - Existing - Existing						Out of range

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-3 (EXISTING) - Existing - Existing													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		
12,900.0	7,558.0	7,558.0	7,558.0	91.0	13.2	-90.00	-5,449.6	-14.0	462.7	358.6	104.09	4.445		
13,000.0	7,558.0	7,558.0	7,558.0	92.7	13.2	-90.00	-5,449.6	-14.0	372.2	266.4	105.82	3.517		
13,100.0	7,558.0	7,558.0	7,558.0	94.4	13.2	-90.00	-5,449.6	-14.0	288.0	180.5	107.56	2.678		
13,200.0	7,558.0	7,558.0	7,558.0	96.2	13.2	-90.00	-5,449.6	-14.0	217.7	108.4	109.29	1.992		
13,300.0	7,558.0	7,558.0	7,558.0	97.9	13.2	-90.00	-5,449.6	-14.0	178.4	67.4	111.03	1.607		
13,327.8	7,558.0	7,558.0	7,558.0	98.4	13.2	-90.00	-5,449.6	-14.0	176.2	64.7	111.51	1.580 CC, ES, SF		
13,400.0	7,558.0	7,558.0	7,558.0	99.6	13.2	-90.00	-5,449.6	-14.0	190.4	77.7	112.77	1.689		
13,500.0	7,558.0	7,558.0	7,558.0	101.4	13.2	-90.00	-5,449.6	-14.0	246.0	131.5	114.44	2.149		
13,600.0	7,558.0	7,558.0	7,558.0	103.1	13.2	-90.00	-5,449.6	-14.0	322.4	206.4	116.05	2.778		
13,700.0	7,558.0	7,558.0	7,558.0	104.8	13.2	-90.00	-5,449.6	-14.0	408.2	290.6	117.61	3.471		
13,800.0	7,558.0	7,558.0	7,558.0	106.6	13.2	-90.00	-5,449.6	-14.0	498.4	379.3	119.12	4.184		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Offset Design												S26-T2N-R66W (Rodman Bruntz) - BADDING-USX W 35-6 (EXISTING) - Existing - Existing		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				
13,900.0	7,558.0	7,561.0	7,561.0	108.3	13.2	90.00	-6,451.4	-341.3	465.0	344.4	120.58	3.857				
14,000.0	7,558.0	7,561.0	7,561.0	110.0	13.2	90.00	-6,451.4	-341.3	380.6	258.6	121.99	3.120				
14,100.0	7,558.0	7,561.0	7,561.0	111.7	13.2	90.00	-6,451.4	-341.3	307.3	184.0	123.35	2.492				
14,200.0	7,558.0	7,561.0	7,561.0	113.4	13.2	90.00	-6,451.4	-341.3	255.1	130.2	124.81	2.044				
14,295.8	7,558.0	7,561.0	7,561.0	115.1	13.2	90.00	-6,451.4	-341.3	236.4	109.9	126.48	1.869 CC				
14,300.0	7,558.0	7,561.0	7,561.0	115.2	13.2	90.00	-6,451.4	-341.3	236.4	109.8	126.55	1.868 ES, SF				
14,400.0	7,558.0	7,561.0	7,561.0	116.9	13.2	90.00	-6,451.4	-341.3	258.3	130.0	128.30	2.013				
14,500.0	7,558.0	7,561.0	7,561.0	118.6	13.2	90.00	-6,451.4	-341.3	312.3	182.3	130.04	2.402				
14,600.0	7,558.0	7,561.0	7,561.0	120.3	13.2	90.00	-6,451.4	-341.3	385.2	253.4	131.79	2.923				
14,700.0	7,558.0	7,561.0	7,561.0	122.0	13.2	90.00	-6,451.4	-341.3	468.2	334.7	133.53	3.506				
14,715.6	7,558.0	7,561.0	7,561.0	122.3	13.2	90.00	-6,451.4	-341.3	481.7	347.9	133.81	3.600				

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - OLIVE 23-26 (EXISTING) - Existing - Existing													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		
10,200.0	7,558.0	7,535.0	7,535.0	44.8	13.2	-90.00	-2,678.5	36.6	422.8	365.0	57.79	7.316		
10,300.0	7,558.0	7,535.0	7,535.0	46.4	13.2	-90.00	-2,678.5	36.6	342.6	283.1	59.46	5.762		
10,400.0	7,558.0	7,535.0	7,535.0	48.1	13.2	-90.00	-2,678.5	36.6	275.7	214.6	61.14	4.510		
10,500.0	7,558.0	7,535.0	7,535.0	49.8	13.2	-90.00	-2,678.5	36.6	233.8	171.0	62.83	3.722		
10,556.8	7,558.0	7,535.0	7,535.0	50.7	13.2	-90.00	-2,678.5	36.6	226.8	163.1	63.79	3.556	CC, ES, SF	
10,600.0	7,558.0	7,535.0	7,535.0	51.5	13.2	-90.00	-2,678.5	36.6	230.9	166.4	64.52	3.579		
10,700.0	7,558.0	7,535.0	7,535.0	53.2	13.2	-90.00	-2,678.5	36.6	268.3	202.1	66.21	4.052		
10,800.0	7,558.0	7,535.0	7,535.0	54.9	13.2	-90.00	-2,678.5	36.6	332.6	264.7	67.91	4.898		
10,900.0	7,558.0	7,535.0	7,535.0	56.6	13.2	-90.00	-2,678.5	36.6	411.4	341.8	69.61	5.911		
11,000.0	7,558.0	7,535.0	7,535.0	58.3	13.2	-90.00	-2,678.5	36.6	497.9	426.6	71.31	6.982		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 21-26 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 100-Gyro													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	88.97	1.1	61.8	63.4					
100.0	100.0	86.5	86.5	0.2	0.1	88.57	1.5	61.4	61.4	61.2	0.23	269.942		
200.0	200.0	186.6	186.6	0.3	0.2	87.44	2.7	60.4	60.5	60.0	0.49	123.443		
300.0	300.0	286.8	286.8	0.5	0.3	107.41	3.5	59.3	59.6	58.9	0.75	79.174		
365.9	365.9	352.5	352.4	0.6	0.3	108.58	3.7	58.5	59.3	58.4	0.93	63.895 CC		
400.0	400.0	386.4	386.4	0.7	0.3	109.34	4.0	58.2	59.4	58.4	1.02	58.289 ES		
500.0	499.9	486.3	486.3	0.9	0.4	112.14	5.1	57.6	60.3	59.0	1.29	46.663		
600.0	599.7	586.1	586.0	1.1	0.5	115.91	6.7	57.1	62.2	60.6	1.57	39.489		
700.0	699.4	685.5	685.4	1.3	0.6	120.82	8.1	56.9	65.6	63.7	1.86	35.201		
800.0	798.9	784.7	784.7	1.5	0.7	126.61	9.0	57.3	71.0	68.9	2.15	32.984		
900.0	898.3	883.9	883.8	1.8	0.8	132.61	9.5	58.0	78.8	76.3	2.44	32.233		
1,000.0	997.4	982.1	982.0	2.0	0.9	138.14	9.9	59.2	89.1	86.4	2.73	32.641		
1,100.0	1,096.3	1,080.2	1,080.1	2.3	0.9	143.20	9.5	61.2	102.5	99.5	3.01	34.053		
1,200.0	1,194.9	1,178.2	1,178.1	2.7	1.0	147.56	8.7	63.4	118.5	115.2	3.29	36.039		
1,300.0	1,293.4	1,276.4	1,276.2	3.0	1.1	151.05	8.0	66.0	135.9	132.3	3.56	38.185		
1,400.0	1,391.9	1,374.6	1,374.4	3.3	1.2	153.81	7.2	68.3	153.6	149.8	3.83	40.156		
1,500.0	1,490.4	1,473.4	1,473.2	3.7	1.3	156.14	6.3	70.4	171.5	167.4	4.09	41.936		
1,600.0	1,588.9	1,572.5	1,572.2	4.0	1.4	158.20	5.3	71.7	189.1	184.8	4.35	43.482		
1,700.0	1,687.3	1,671.2	1,670.9	4.3	1.5	159.90	4.6	72.7	206.6	202.0	4.61	44.833		
1,800.0	1,785.8	1,769.4	1,769.1	4.7	1.5	161.36	3.9	73.6	224.2	219.3	4.87	46.064		
1,900.0	1,884.3	1,867.1	1,866.8	5.0	1.6	162.59	3.1	74.7	242.0	236.9	5.12	47.224		
2,000.0	1,982.8	1,966.6	1,966.4	5.4	1.7	163.61	2.4	76.0	259.9	254.6	5.38	48.275		
2,100.0	2,081.3	2,065.5	2,065.2	5.7	1.8	164.56	2.0	76.6	277.4	271.7	5.64	49.154		
2,200.0	2,179.7	2,163.6	2,163.3	6.1	1.9	165.39	1.6	77.4	294.9	289.0	5.90	49.986		
2,300.0	2,278.2	2,262.6	2,262.3	6.4	2.0	166.23	0.8	77.7	312.6	306.4	6.16	50.767		
2,400.0	2,376.7	2,361.2	2,360.9	6.8	2.1	166.91	0.7	78.1	329.8	323.4	6.42	51.400		
2,500.0	2,475.2	2,460.3	2,460.0	7.1	2.2	167.59	1.0	77.8	346.3	339.7	6.67	51.895		
2,600.0	2,573.7	2,558.2	2,557.9	7.4	2.2	168.20	1.5	77.3	362.6	355.7	6.93	52.326		
2,700.0	2,672.1	2,656.3	2,656.0	7.8	2.3	168.90	1.7	76.0	378.9	371.7	7.18	52.738		
2,800.0	2,770.6	2,754.1	2,753.8	8.1	2.4	169.61	2.4	73.9	394.3	386.8	7.44	53.016		
2,900.0	2,869.1	2,853.9	2,853.5	8.5	2.5	170.17	3.6	72.2	409.5	401.8	7.69	53.235		
3,000.0	2,967.6	2,951.9	2,951.5	8.8	2.6	170.70	4.9	70.4	424.6	416.6	7.95	53.436		
3,100.0	3,066.1	3,050.4	3,050.1	9.2	2.7	171.26	5.8	68.2	439.9	431.7	8.20	53.656		
3,200.0	3,164.5	3,148.4	3,148.1	9.5	2.8	171.77	7.1	66.0	454.9	446.5	8.45	53.811		
3,300.0	3,263.0	3,246.4	3,246.1	9.9	2.8	172.15	8.9	64.3	469.8	461.0	8.71	53.924		
3,400.0	3,361.5	3,344.2	3,343.7	10.2	2.9	172.51	11.3	62.4	484.2	475.2	8.97	53.966		
3,500.0	3,460.1	3,443.5	3,443.2	10.6	3.0	172.86	14.0	60.1	497.0	487.8	9.23	53.867		
5,600.0	5,556.4	5,540.2	5,539.9	13.8	4.9	158.43	60.7	-7.6	497.0	482.4	14.60	34.031		
5,700.0	5,656.4	5,640.0	5,639.6	13.9	5.0	158.73	63.1	-11.3	493.4	478.5	14.87	33.189		
5,800.0	5,756.4	5,740.1	5,739.8	14.0	5.1	159.00	65.3	-14.7	490.0	474.9	15.13	32.390		
5,900.0	5,856.4	5,840.3	5,839.9	14.1	5.2	159.22	67.5	-17.5	486.9	471.5	15.39	31.638		
6,000.0	5,956.4	5,940.8	5,940.4	14.3	5.3	159.42	69.2	-19.9	484.4	468.8	15.65	30.953		
6,100.0	6,056.4	6,040.7	6,040.3	14.4	5.4	159.57	71.0	-22.0	482.0	466.1	15.91	30.292		
6,200.0	6,156.4	6,140.9	6,140.5	14.5	5.5	159.60	73.1	-23.0	479.8	463.6	16.18	29.660		
6,300.0	6,256.4	6,241.1	6,240.7	14.7	5.6	159.69	75.8	-24.9	476.6	460.2	16.44	28.990		
6,400.0	6,356.4	6,340.3	6,339.9	14.8	5.6	159.78	78.7	-26.7	473.3	456.6	16.70	28.335		
6,500.0	6,456.4	6,440.3	6,439.9	14.9	5.7	159.90	81.3	-28.7	470.2	453.2	16.97	27.712		
6,600.0	6,556.4	6,540.2	6,539.8	15.1	5.8	160.08	84.1	-31.3	466.7	449.5	17.23	27.087		
6,700.0	6,656.4	6,640.3	6,639.9	15.2	5.9	160.25	87.4	-34.0	462.8	445.3	17.50	26.449		
6,800.0	6,756.4	6,740.7	6,740.3	15.3	6.0	160.41	91.2	-36.7	458.3	440.6	17.76	25.806		
6,900.0	6,856.4	6,840.8	6,840.4	15.5	6.1	160.71	94.3	-40.3	454.1	436.1	18.02	25.194		
7,000.0	6,956.4	6,940.9	6,940.5	15.6	6.2	161.11	96.8	-44.5	450.3	432.0	18.29	24.622		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - RODMAN BRUNTZ 21-26 (EXISTING) - Existing - Existing													Offset Site Error: 0.0 ft	
Survey Program: 100-Gyro													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		
7,100.0	7,056.3	7,062.2	7,058.8	15.7	6.3	-18.77	98.9	-49.6	442.5	424.1	18.44	24.000		
7,200.0	7,153.9	7,161.8	7,158.2	15.6	6.4	-19.92	101.2	-55.1	418.7	400.3	18.40	22.756		
7,300.0	7,246.4	7,252.9	7,249.1	15.3	6.5	-22.83	103.8	-60.2	379.1	360.9	18.24	20.779		
7,400.0	7,331.0	7,336.3	7,332.3	15.0	6.6	-28.40	105.6	-65.5	325.9	307.8	18.11	18.000		
7,500.0	7,405.0	7,409.9	7,405.7	14.6	6.6	-39.28	107.7	-70.2	261.3	243.0	18.33	14.260		
7,600.0	7,466.3	7,468.3	7,464.0	14.3	6.7	-58.24	109.5	-73.8	191.0	171.8	19.27	9.914		
7,700.0	7,513.0	7,512.3	7,507.9	14.1	6.7	-82.14	110.8	-76.5	129.5	109.4	20.18	6.419		
7,766.6	7,535.2	7,532.4	7,528.0	14.0	6.8	-93.56	111.4	-77.7	112.7	92.4	20.30	5.552 SF		
7,800.0	7,543.6	7,539.7	7,535.2	14.0	6.8	-96.69	111.6	-78.2	117.4	97.1	20.27	5.790		
7,900.0	7,557.3	7,549.9	7,545.4	14.2	6.8	-94.50	112.0	-78.8	174.1	153.7	20.45	8.513		
8,000.0	7,558.0	7,547.3	7,542.8	14.6	6.8	-89.40	111.9	-78.6	258.9	238.1	20.84	12.428		
8,100.0	7,558.0	7,544.1	7,539.6	15.1	6.8	-87.76	111.8	-78.4	351.8	330.4	21.40	16.437		
8,200.0	7,558.0	7,541.0	7,536.5	15.9	6.8	-86.16	111.7	-78.2	447.7	425.6	22.14	20.219		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 22-26 - DD - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 123-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
9,000.0	7,558.0	7,687.2	7,536.6	25.6	23.8	-91.11	-1,531.0	-105.6	417.8	376.7	41.18	10.146		
9,100.0	7,558.0	7,686.6	7,536.1	27.1	23.8	-90.76	-1,531.0	-105.6	320.6	277.9	42.69	7.509		
9,200.0	7,558.0	7,686.1	7,535.6	28.6	23.8	-90.41	-1,531.0	-105.6	225.7	181.4	44.22	5.103		
9,300.0	7,558.0	7,685.6	7,535.1	30.2	23.8	-90.05	-1,531.0	-105.6	138.1	92.4	45.78	3.017		
9,400.0	7,558.0	7,685.1	7,534.5	31.7	23.8	-89.69	-1,531.0	-105.6	85.1	37.7	47.36	1.797		
9,409.1	7,558.0	7,685.0	7,534.5	31.9	23.8	-89.66	-1,531.0	-105.6	84.6	37.1	47.50	1.781	CC, ES, SF	
9,500.0	7,558.0	7,684.5	7,534.0	33.3	23.8	-89.33	-1,531.0	-105.6	124.1	75.2	48.95	2.535		
9,600.0	7,558.0	7,684.0	7,533.5	34.9	23.8	-88.97	-1,531.0	-105.6	208.7	158.2	50.56	4.128		
9,700.0	7,558.0	7,683.4	7,532.9	36.5	23.8	-88.60	-1,531.0	-105.6	302.9	250.7	52.18	5.804		
9,800.0	7,558.0	7,682.9	7,532.4	38.2	23.8	-88.24	-1,531.0	-105.6	399.9	346.0	53.80	7.432		
9,900.0	7,558.0	7,682.4	7,531.8	39.8	23.8	-87.87	-1,531.0	-105.6	498.0	442.6	55.44	8.983		

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2C-26H - 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		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-89.89	0.0	-8.4	8.4						
100.0	100.0	99.0	99.0	0.2	0.2	-89.89	0.0	-8.4	8.4	8.1	0.30	27.767			
200.0	200.0	199.0	199.0	0.3	0.3	-89.89	0.0	-8.4	8.4	7.7	0.65	12.888			
300.0	300.0	299.0	299.0	0.5	0.5	-75.67	0.0	-8.4	8.1	7.1	1.00	8.124			
381.8	381.8	380.8	380.8	0.6	0.6	-90.00	0.0	-8.4	7.9	6.6	1.29	6.103 CC			
400.0	400.0	399.0	399.0	0.7	0.7	-94.39	0.0	-8.4	7.9	6.5	1.36	5.831 ES			
500.0	499.9	498.9	498.9	0.9	0.8	-122.19	0.0	-8.4	9.3	7.6	1.71	5.441			
600.0	599.7	598.7	598.7	1.1	1.0	-144.50	0.0	-8.4	13.6	11.5	2.06	6.596			
700.0	699.4	698.4	698.4	1.3	1.2	-157.31	0.0	-8.4	20.5	18.1	2.40	8.522			
800.0	798.9	797.9	797.9	1.5	1.4	-164.47	0.0	-8.4	29.6	26.8	2.75	10.761			
900.0	898.3	897.3	897.3	1.8	1.5	-168.73	0.0	-8.4	40.6	37.5	3.09	13.135			
1,000.0	997.4	996.4	996.4	2.0	1.7	-171.44	0.0	-8.4	53.5	50.0	3.43	15.575			
1,100.0	1,096.3	1,095.3	1,095.3	2.3	1.9	-173.28	0.0	-8.4	68.1	64.3	3.77	18.052			
1,200.0	1,194.9	1,195.1	1,195.1	2.7	2.1	-174.27	0.5	-9.0	83.9	79.8	4.12	20.385			
1,300.0	1,293.4	1,295.2	1,295.2	3.0	2.2	-174.44	2.2	-10.9	99.1	94.7	4.47	22.195			
1,400.0	1,391.9	1,395.8	1,395.7	3.3	2.4	-174.05	5.0	-14.2	112.9	108.1	4.82	23.425			
1,500.0	1,490.4	1,496.7	1,496.4	3.7	2.6	-173.27	9.0	-18.8	125.3	120.2	5.18	24.188			
1,600.0	1,588.9	1,597.9	1,597.3	4.0	2.8	-172.18	14.1	-24.8	136.3	130.8	5.55	24.564			
1,700.0	1,687.3	1,699.4	1,698.3	4.3	3.0	-170.82	20.4	-32.1	146.0	140.1	5.93	24.616			
1,800.0	1,785.8	1,801.0	1,799.3	4.7	3.2	-169.20	27.9	-40.9	154.4	148.1	6.33	24.391			
1,900.0	1,884.3	1,902.8	1,900.1	5.0	3.5	-167.33	36.6	-51.0	161.6	154.8	6.75	23.928			
2,000.0	1,982.8	2,004.5	2,000.8	5.4	3.7	-165.20	46.5	-62.4	167.6	160.4	7.21	23.259			
2,100.0	2,081.3	2,106.3	2,101.1	5.7	4.0	-162.79	57.5	-75.2	172.6	164.9	7.70	22.415			
2,200.0	2,179.7	2,208.0	2,201.1	6.1	4.3	-160.09	69.7	-89.4	176.7	168.5	8.25	21.426			
2,300.0	2,278.2	2,309.5	2,300.6	6.4	4.7	-157.08	83.0	-104.8	180.1	171.3	8.86	20.326			
2,400.0	2,376.7	2,410.8	2,399.4	6.8	5.0	-153.73	97.4	-121.6	182.9	173.4	9.55	19.154			
2,500.0	2,475.2	2,511.9	2,497.7	7.1	5.4	-150.04	112.9	-139.6	185.4	175.1	10.33	17.953			
2,600.0	2,573.7	2,612.4	2,594.9	7.4	5.9	-146.01	129.4	-158.8	187.9	176.7	11.20	16.775			
2,700.0	2,672.1	2,711.5	2,690.6	7.8	6.3	-141.98	146.1	-178.3	190.9	178.8	12.12	15.755			
2,800.0	2,770.6	2,810.5	2,786.3	8.1	6.7	-138.09	162.9	-197.7	194.9	181.9	13.07	14.913			
2,900.0	2,869.1	2,909.6	2,881.9	8.5	7.2	-134.37	179.6	-217.1	199.8	185.8	14.04	14.229			
3,000.0	2,967.6	3,008.6	2,977.6	8.8	7.6	-130.84	196.3	-236.6	205.5	190.5	15.02	13.682			
3,100.0	3,066.1	3,107.6	3,073.3	9.2	8.1	-127.50	213.0	-256.0	211.9	195.9	15.99	13.250			
3,200.0	3,164.5	3,206.7	3,168.9	9.5	8.5	-124.38	229.7	-275.4	219.0	202.1	16.96	12.917			
3,300.0	3,263.0	3,305.7	3,264.6	9.9	9.0	-121.45	246.4	-294.9	226.7	208.8	17.90	12.663			
3,400.0	3,361.5	3,404.8	3,360.3	10.2	9.5	-118.72	263.2	-314.3	235.0	216.2	18.84	12.477			
3,500.0	3,460.1	3,503.8	3,455.9	10.6	9.9	-116.07	279.9	-333.7	243.4	223.7	19.74	12.333			
3,600.0	3,559.0	3,602.6	3,551.4	10.9	10.4	-113.25	296.5	-353.1	251.6	231.0	20.60	12.213			
3,700.0	3,658.2	3,701.4	3,646.7	11.1	10.8	-110.27	313.2	-372.5	259.9	238.4	21.43	12.128			
3,800.0	3,757.5	3,799.9	3,741.9	11.4	11.3	-107.15	329.8	-391.8	268.3	246.1	22.19	12.091			
3,900.0	3,857.1	3,898.2	3,836.9	11.6	11.8	-103.89	346.4	-411.1	277.1	254.2	22.88	12.110			
4,000.0	3,956.8	3,996.3	3,931.6	11.8	12.3	-100.52	363.0	-430.4	286.4	262.9	23.49	12.195			
4,100.0	4,056.6	4,094.0	4,026.1	12.0	12.7	-97.07	379.5	-449.6	296.6	272.6	24.00	12.357			
4,200.0	4,156.5	4,191.5	4,120.2	12.1	13.2	-93.57	395.9	-468.7	307.7	283.3	24.41	12.604			
4,300.0	4,256.4	4,288.7	4,214.1	12.3	13.7	-90.04	412.3	-487.8	320.0	295.3	24.72	12.945			
4,400.0	4,356.4	4,388.3	4,310.5	12.4	14.1	-106.51	428.7	-506.8	333.3	308.4	24.92	13.375			
4,500.0	4,456.4	4,488.9	4,408.3	12.5	14.5	-103.19	444.2	-524.8	346.8	321.8	25.04	13.850			
4,600.0	4,556.4	4,590.4	4,507.3	12.6	15.0	-100.32	458.6	-541.5	360.4	335.2	25.14	14.332			
4,700.0	4,656.4	4,692.7	4,607.5	12.7	15.3	-97.85	472.0	-557.1	373.5	348.2	25.24	14.799			
4,800.0	4,756.4	4,795.6	4,708.7	12.8	15.7	-95.73	484.3	-571.4	386.0	360.6	25.33	15.236			
4,900.0	4,856.4	4,899.2	4,810.9	12.9	16.1	-93.93	495.5	-584.4	397.6	372.2	25.44	15.632			
5,000.0	4,956.4	5,003.5	4,913.9	13.0	16.4	-92.41	505.5	-596.1	408.3	382.8	25.56	15.978			

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2C-26H - 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)						
5,100.0	5,056.4	5,108.2	5,017.8	13.2	16.6	-91.13	514.4	-606.4	417.9	392.2	25.69	16.266		
5,200.0	5,156.4	5,213.4	5,122.4	13.3	16.9	-90.08	522.0	-615.2	426.3	400.5	25.85	16.494		
5,300.0	5,256.4	5,319.0	5,227.5	13.4	17.1	-89.23	528.4	-622.7	433.4	407.4	26.02	16.658		
5,400.0	5,356.4	5,425.0	5,333.2	13.5	17.3	-88.57	533.6	-628.7	439.2	413.0	26.21	16.756		
5,500.0	5,456.4	5,531.2	5,439.2	13.6	17.5	-88.08	537.4	-633.2	443.5	417.1	26.42	16.788		
5,600.0	5,556.4	5,637.6	5,545.5	13.8	17.7	-87.76	540.1	-636.2	446.5	419.8	26.65	16.755		
5,700.0	5,656.4	5,744.1	5,652.0	13.9	17.8	-87.59	541.4	-637.8	448.0	421.1	26.89	16.659		
5,800.0	5,756.4	5,847.5	5,755.4	14.0	17.9	-87.57	541.6	-638.0	448.2	421.0	27.15	16.506		
5,900.0	5,856.4	5,947.5	5,855.4	14.1	18.0	-87.57	541.6	-638.0	448.2	420.8	27.41	16.349		
6,000.0	5,956.4	6,047.5	5,955.4	14.3	18.1	-87.57	541.6	-638.0	448.2	420.5	27.68	16.193		
6,100.0	6,056.4	6,147.5	6,055.4	14.4	18.2	-87.57	541.6	-638.0	448.2	420.2	27.94	16.039		
6,200.0	6,156.4	6,247.5	6,155.4	14.5	18.3	-87.57	541.6	-638.0	448.2	420.0	28.21	15.887		
6,300.0	6,256.4	6,347.5	6,255.4	14.7	18.4	-87.57	541.6	-638.0	448.2	419.7	28.48	15.737		
6,400.0	6,356.4	6,447.5	6,355.4	14.8	18.5	-87.57	541.6	-638.0	448.2	419.4	28.75	15.589		
6,500.0	6,456.4	6,547.5	6,455.4	14.9	18.6	-87.57	541.6	-638.0	448.2	419.2	29.02	15.442		
6,600.0	6,556.4	6,647.5	6,555.4	15.1	18.7	-87.57	541.6	-638.0	448.2	418.9	29.30	15.298		
6,700.0	6,656.4	6,747.8	6,655.7	15.2	18.8	-87.58	541.5	-638.0	448.2	418.6	29.57	15.155		
6,800.0	6,756.4	6,849.6	6,757.1	15.3	18.8	-88.66	533.0	-638.0	447.9	418.0	29.90	14.979		
6,855.2	6,811.6	6,904.2	6,810.6	15.4	18.8	-90.00	522.6	-638.0	447.8	417.6	30.13	14.860		
6,900.0	6,856.4	6,947.1	6,852.1	15.5	18.7	-91.42	511.5	-638.0	447.9	417.6	30.34	14.764		
7,000.0	6,956.4	7,037.4	6,936.7	15.6	18.6	-95.40	480.3	-638.0	450.2	419.4	30.81	14.610		
7,100.0	7,056.3	7,120.4	7,010.6	15.7	18.3	79.77	442.3	-638.0	456.4	425.2	31.19	14.631		
7,200.0	7,153.9	7,200.0	7,076.7	15.6	18.1	75.35	398.2	-638.0	464.9	433.7	31.12	14.936		
7,300.0	7,246.4	7,280.7	7,138.4	15.3	17.9	71.52	346.2	-638.0	474.1	443.5	30.58	15.505		
7,400.0	7,331.0	7,359.1	7,192.4	15.0	17.7	68.50	289.3	-638.0	482.8	453.2	29.64	16.291		
7,500.0	7,405.0	7,436.8	7,239.4	14.6	17.5	66.28	227.6	-638.0	490.0	461.5	28.46	17.217		
7,600.0	7,466.3	7,513.9	7,279.2	14.3	17.4	64.87	161.5	-638.0	494.9	467.6	27.28	18.145		
7,700.0	7,513.0	7,590.8	7,311.6	14.1	17.4	64.26	91.9	-638.0	497.1	470.8	26.36	18.860		
7,800.0	7,543.6	7,667.7	7,336.3	14.0	17.4	64.45	19.1	-638.0	496.4	470.5	25.97	19.116		
7,900.0	7,557.3	7,750.0	7,354.0	14.2	17.5	65.50	-61.2	-638.0	492.9	466.6	26.31	18.735		
8,000.0	7,558.0	7,822.3	7,361.8	14.6	17.8	66.45	-133.1	-638.0	488.6	461.5	27.09	18.035		
8,070.7	7,558.0	7,881.7	7,363.0	14.9	18.0	66.58	-192.5	-638.0	488.0	460.2	27.80	17.555		
8,100.0	7,558.0	7,911.0	7,363.0	15.1	18.2	66.58	-221.8	-638.0	488.0	459.9	28.14	17.343		
8,200.0	7,558.0	8,011.0	7,363.0	15.9	18.8	66.58	-321.8	-638.0	488.0	458.5	29.53	16.524		
8,300.0	7,558.0	8,111.0	7,363.0	16.8	19.5	66.58	-421.8	-638.0	488.0	456.8	31.20	15.641		
8,400.0	7,558.0	8,211.0	7,363.0	17.8	20.4	66.58	-521.8	-638.0	488.0	454.9	33.10	14.744		
8,500.0	7,558.0	8,311.0	7,363.0	18.9	21.4	66.57	-621.8	-638.0	488.0	452.8	35.19	13.868		
8,600.0	7,558.0	8,411.0	7,363.0	20.1	22.5	66.57	-721.8	-638.0	488.0	450.5	37.44	13.034		
8,700.0	7,558.0	8,511.0	7,363.0	21.4	23.6	66.57	-821.8	-638.0	488.0	448.2	39.83	12.253		
8,800.0	7,558.0	8,611.0	7,363.0	22.8	24.9	66.57	-921.8	-638.0	488.0	445.7	42.32	11.530		
8,900.0	7,558.0	8,711.0	7,363.0	24.2	26.2	66.57	-1,021.8	-638.0	488.0	443.1	44.91	10.865		
9,000.0	7,558.0	8,811.0	7,363.0	25.6	27.5	66.57	-1,121.8	-638.0	488.0	440.4	47.58	10.256		
9,100.0	7,558.0	8,911.0	7,363.0	27.1	28.9	66.57	-1,221.8	-638.0	488.0	437.7	50.31	9.699		
9,200.0	7,558.0	9,011.0	7,363.0	28.6	30.3	66.57	-1,321.8	-638.0	488.0	434.9	53.10	9.190		
9,300.0	7,558.0	9,111.0	7,363.0	30.2	31.8	66.57	-1,421.8	-637.9	488.0	432.0	55.93	8.724		
9,400.0	7,558.0	9,211.0	7,363.0	31.7	33.3	66.57	-1,521.8	-637.9	488.0	429.2	58.81	8.298		
9,500.0	7,558.0	9,311.0	7,363.0	33.3	34.8	66.57	-1,621.8	-637.9	488.0	426.2	61.71	7.907		
9,600.0	7,558.0	9,411.0	7,363.0	34.9	36.3	66.57	-1,721.8	-637.9	488.0	423.3	64.65	7.547		
9,700.0	7,558.0	9,511.0	7,363.0	36.5	37.9	66.57	-1,821.8	-637.9	488.0	420.3	67.62	7.217		
9,800.0	7,558.0	9,611.0	7,363.0	38.2	39.5	66.57	-1,921.8	-637.9	488.0	417.4	70.60	6.911		
9,900.0	7,558.0	9,711.0	7,363.0	39.8	41.0	66.57	-2,021.8	-637.9	488.0	414.3	73.61	6.629		
10,000.0	7,558.0	9,811.0	7,363.0	41.4	42.6	66.57	-2,121.8	-637.9	488.0	411.3	76.63	6.367		

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2C-26H - 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		
10,100.0	7,558.0	9,911.0	7,363.0	43.1	44.2	66.57	-2,221.8	-637.9	488.0	408.3	79.67	6.124	
10,200.0	7,558.0	10,011.0	7,363.0	44.8	45.9	66.57	-2,321.8	-637.9	488.0	405.2	82.73	5.898	
10,300.0	7,558.0	10,111.0	7,363.0	46.4	47.5	66.57	-2,421.8	-637.9	488.0	402.2	85.79	5.687	
10,400.0	7,558.0	10,211.0	7,363.0	48.1	49.1	66.57	-2,521.8	-637.9	487.9	399.1	88.87	5.491	
10,500.0	7,558.0	10,311.0	7,363.0	49.8	50.8	66.57	-2,621.8	-637.9	487.9	396.0	91.96	5.306	
10,600.0	7,558.0	10,411.0	7,363.0	51.5	52.4	66.57	-2,721.8	-637.9	487.9	392.9	95.05	5.133	
10,700.0	7,558.0	10,511.0	7,363.0	53.2	54.1	66.57	-2,821.8	-637.9	487.9	389.8	98.16	4.971	
10,800.0	7,558.0	10,611.0	7,363.0	54.9	55.8	66.57	-2,921.8	-637.9	487.9	386.7	101.27	4.818	
10,900.0	7,558.0	10,711.0	7,363.0	56.6	57.4	66.57	-3,021.8	-637.9	487.9	383.6	104.39	4.674	
11,000.0	7,558.0	10,811.0	7,363.0	58.3	59.1	66.57	-3,121.8	-637.9	487.9	380.4	107.51	4.538	
11,100.0	7,558.0	10,911.0	7,363.0	60.0	60.8	66.57	-3,221.8	-637.9	487.9	377.3	110.64	4.410	
11,200.0	7,558.0	11,011.0	7,363.0	61.7	62.5	66.57	-3,321.8	-637.9	487.9	374.2	113.78	4.288	
11,300.0	7,558.0	11,111.0	7,363.0	63.4	64.2	66.57	-3,421.8	-637.9	487.9	371.0	116.92	4.173	
11,400.0	7,558.0	11,211.0	7,363.0	65.1	65.8	66.57	-3,521.8	-637.9	487.9	367.9	120.06	4.064	
11,500.0	7,558.0	11,311.0	7,363.0	66.8	67.5	66.57	-3,621.8	-637.9	487.9	364.7	123.21	3.960	
11,600.0	7,558.0	11,411.0	7,363.0	68.5	69.2	66.57	-3,721.8	-637.9	487.9	361.6	126.36	3.861	
11,700.0	7,558.0	11,511.0	7,363.0	70.2	70.9	66.57	-3,821.8	-637.9	487.9	358.4	129.52	3.767	
11,800.0	7,558.0	11,611.0	7,363.0	72.0	72.6	66.57	-3,921.8	-637.9	487.9	355.2	132.68	3.678	
11,900.0	7,558.0	11,711.0	7,363.0	73.7	74.3	66.57	-4,021.8	-637.9	487.9	352.1	135.84	3.592	
12,000.0	7,558.0	11,811.0	7,363.0	75.4	76.0	66.57	-4,121.8	-637.9	487.9	348.9	139.00	3.510	
12,100.0	7,558.0	11,911.0	7,363.0	77.1	77.8	66.57	-4,221.8	-637.9	487.9	345.7	142.17	3.432	
12,200.0	7,558.0	12,011.0	7,363.0	78.8	79.5	66.57	-4,321.8	-637.9	487.9	342.6	145.34	3.357	
12,300.0	7,558.0	12,111.0	7,363.0	80.6	81.2	66.57	-4,421.8	-637.9	487.9	339.4	148.51	3.285	
12,400.0	7,558.0	12,211.0	7,363.0	82.3	82.9	66.57	-4,521.8	-637.9	487.9	336.2	151.69	3.217	
12,500.0	7,558.0	12,311.0	7,363.0	84.0	84.6	66.57	-4,621.8	-637.9	487.9	333.1	154.86	3.151	
12,600.0	7,558.0	12,411.0	7,363.0	85.8	86.3	66.57	-4,721.8	-637.9	487.9	329.9	158.04	3.087	
12,700.0	7,558.0	12,511.0	7,363.0	87.5	88.0	66.57	-4,821.8	-637.9	487.9	326.7	161.22	3.026	
12,800.0	7,558.0	12,611.0	7,363.0	89.2	89.8	66.57	-4,921.8	-637.9	487.9	323.5	164.40	2.968	
12,900.0	7,558.0	12,711.0	7,363.0	91.0	91.5	66.57	-5,021.8	-637.9	487.9	320.3	167.58	2.911	
13,000.0	7,558.0	12,811.0	7,363.0	92.7	93.2	66.57	-5,121.8	-637.9	487.9	317.1	170.77	2.857	
13,100.0	7,558.0	12,911.0	7,363.0	94.4	94.9	66.57	-5,221.8	-637.9	487.9	313.9	173.95	2.805	
13,200.0	7,558.0	13,011.0	7,363.0	96.2	96.7	66.57	-5,321.8	-637.9	487.9	310.8	177.14	2.754	
13,300.0	7,558.0	13,111.0	7,363.0	97.9	98.4	66.57	-5,421.8	-637.9	487.9	307.6	180.33	2.706	
13,400.0	7,558.0	13,211.0	7,363.0	99.6	100.1	66.57	-5,521.8	-637.9	487.9	304.4	183.52	2.659	
13,400.2	7,558.0	13,211.2	7,363.0	99.6	100.1	66.57	-5,522.0	-637.9	487.9	304.4	183.53	2.658	
13,500.0	7,558.0	13,311.0	7,363.0	101.4	101.8	66.59	-5,621.8	-637.9	488.4	301.9	186.53	2.619	
13,600.0	7,558.0	13,411.0	7,363.0	103.1	103.6	66.71	-5,721.7	-637.9	490.9	301.4	189.49	2.591	
13,700.0	7,558.0	13,510.9	7,363.0	104.8	105.3	66.91	-5,821.6	-637.9	495.5	303.0	192.49	2.574 SF	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Offset Design S26-T2N-R66W (Rodman Bruntz) - Rodman Bruntz 2E-26H - 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	90.00	0.0	11.2	11.2						
100.0	100.0	100.0	100.0	0.2	0.2	90.00	0.0	11.2	11.2	10.9	0.30	36.838			
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	11.2	11.2	10.5	0.65	17.139	CC, ES		
300.0	300.0	299.9	299.8	0.5	0.5	110.97	0.6	11.8	12.1	11.1	1.00	12.072			
400.0	400.0	399.7	399.6	0.7	0.7	113.14	2.5	13.7	14.9	13.5	1.36	10.948	SF		
500.0	499.9	499.3	499.2	0.9	0.9	115.38	5.5	16.7	19.5	17.8	1.73	11.311			
600.0	599.7	598.9	598.6	1.1	1.1	117.15	9.8	21.0	26.0	23.9	2.11	12.351			
700.0	699.4	698.2	697.6	1.3	1.3	118.43	15.3	26.5	34.5	31.9	2.51	13.710			
800.0	798.9	797.3	796.2	1.5	1.5	119.32	21.9	33.3	44.7	41.8	2.94	15.203			
900.0	898.3	896.0	894.3	1.8	1.8	119.94	29.8	41.1	56.9	53.5	3.40	16.727			
1,000.0	997.4	994.4	991.9	2.0	2.0	120.36	38.7	50.2	70.8	66.9	3.89	18.220			
1,100.0	1,096.3	1,092.4	1,088.8	2.3	2.3	120.65	48.9	60.4	86.6	82.2	4.41	19.647			
1,200.0	1,194.9	1,189.9	1,185.0	2.7	2.6	120.85	60.1	71.7	104.3	99.3	4.97	20.989			
1,300.0	1,293.4	1,288.1	1,281.7	3.0	3.0	121.06	72.1	83.8	122.9	117.3	5.54	22.178			
1,400.0	1,391.9	1,386.3	1,378.4	3.3	3.3	121.21	84.1	95.9	141.5	135.4	6.12	23.115			
1,500.0	1,490.4	1,484.6	1,475.2	3.7	3.6	121.32	96.2	108.0	160.1	153.4	6.71	23.870			
1,600.0	1,588.9	1,582.8	1,572.0	4.0	4.0	121.42	108.2	120.1	178.8	171.5	7.30	24.490			
1,700.0	1,687.3	1,681.1	1,668.7	4.3	4.3	121.49	120.2	132.2	197.4	189.5	7.89	25.006			
1,800.0	1,785.8	1,779.3	1,765.5	4.7	4.6	121.55	132.2	144.3	216.0	207.5	8.49	25.443			
1,900.0	1,884.3	1,877.6	1,862.2	5.0	5.0	121.60	144.2	156.4	234.6	225.5	9.09	25.816			
2,000.0	1,982.8	1,975.8	1,959.0	5.4	5.3	121.65	156.3	168.5	253.3	243.6	9.69	26.139			
2,100.0	2,081.3	2,074.1	2,055.7	5.7	5.6	121.69	168.3	180.7	271.9	261.6	10.29	26.420			
2,200.0	2,179.7	2,172.3	2,152.5	6.1	6.0	121.72	180.3	192.8	290.5	279.6	10.89	26.667			
2,300.0	2,278.2	2,270.6	2,249.3	6.4	6.3	121.75	192.3	204.9	309.2	297.7	11.50	26.887			
2,400.0	2,376.7	2,368.8	2,346.0	6.8	6.7	121.77	204.4	217.0	327.8	315.7	12.10	27.082			
2,500.0	2,475.2	2,467.1	2,442.8	7.1	7.0	121.80	216.4	229.1	346.4	333.7	12.71	27.257			
2,600.0	2,573.7	2,565.3	2,539.5	7.4	7.3	121.82	228.4	241.2	365.0	351.7	13.32	27.415			
2,700.0	2,672.1	2,663.6	2,636.3	7.8	7.7	121.84	240.4	253.3	383.7	369.7	13.92	27.559			
2,800.0	2,770.6	2,761.8	2,733.0	8.1	8.0	121.85	252.4	265.4	402.3	387.8	14.53	27.689			
2,900.0	2,869.1	2,860.1	2,829.8	8.5	8.4	121.87	264.5	277.5	420.9	405.8	15.14	27.808			
3,000.0	2,967.6	2,958.3	2,926.6	8.8	8.7	121.88	276.5	289.6	439.6	423.8	15.74	27.918			
3,100.0	3,066.1	3,056.6	3,023.3	9.2	9.1	121.90	288.5	301.7	458.2	441.8	16.35	28.018			
3,200.0	3,164.5	3,154.8	3,120.1	9.5	9.4	121.91	300.5	313.8	476.8	459.8	16.96	28.111			
3,300.0	3,263.0	3,253.1	3,216.8	9.9	9.8	121.92	312.5	325.9	495.4	477.9	17.57	28.197			

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.0ft (Original Well Elev)
Reference Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Rodman Bruntz 2D-26H	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 #3	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5111.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Rodman Bruntz 2D-26H
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.49°

