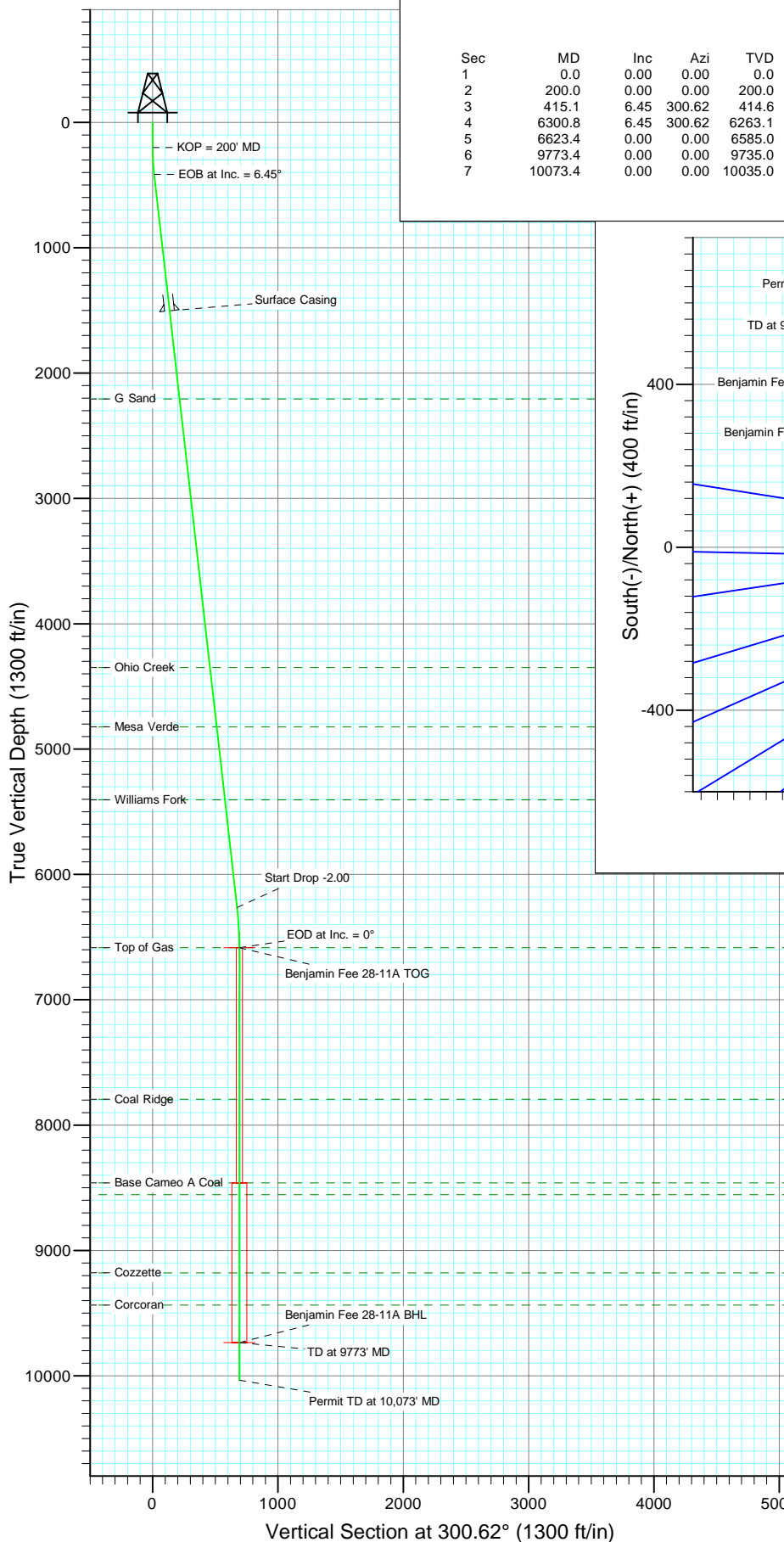




Project: Mamm Creek  
Site: K28NW Pad  
Well: Benjamin Fee 28-11A  
Wellbore: DD  
Design: Plan #2



#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	415.1	6.45	300.62	414.6	6.2	-10.4	3.00	300.62	12.1	
4	6300.8	6.45	300.62	6263.1	343.0	-579.6	0.00	0.00	673.5	
5	6623.4	0.00	0.00	6585.0	352.2	-595.2	2.00	180.00	691.6	Benjamin Fee 28-11A TOG
6	9773.4	0.00	0.00	9735.0	352.2	-595.2	0.00	0.00	691.6	Benjamin Fee 28-11A BHL
7	10073.4	0.00	0.00	10035.0	352.2	-595.2	0.00	0.00	691.6	

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2206.0	2217.9	G Sand
4350.0	4375.5	Ohio Creek
4822.0	4850.5	Mesa Verde
5404.0	5436.3	Williams Fork
6585.0	6623.4	Top of Gas
7794.0	7832.4	Coal Ridge
8460.0	8498.4	Base Cameo A Coal
8555.0	8593.4	Rollins
9180.0	9218.4	Cozzette
9435.0	9473.4	Corcoran



Azimuths to True North  
Magnetic North: 10.30°

Magnetic Field  
Strength: 52364.7snT  
Dip Angle: 65.81°  
Date: 11/24/2010  
Model: IGRF200510

Plan #2  
Benjamin Fee 28-11A  
(2000 FSL - 240 FWL) Job #10xxx: KR  
WELL @ 5965.0ft (Original Well Elev)  
North American Datum 1983  
Well Benjamin Fee 28-11A, True North

Target	Azimuth	Origin Type	N/S	E/W	
Benjamin Fee 28-11A BHL	300.62	Slot	0.0	0.0	
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
Benjamin Fee 28-11A TOG	6585.0	352.2	-595.2	39.495338	-107.782547
Benjamin Fee 28-11A BHL	9735.0	352.2	-595.2	39.495338	-107.782547

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Project:</b>	Mamm Creek	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site:</b>	K28NW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

Project	Mamm Creek		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		K28NW Pad			
Site Position:		Northing:	1,613,160.16 ft	Latitude:	39.494711
From:	Lat/Long	Easting:	2,356,412.22 ft	Longitude:	-107.780819
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.44 °

Well	Benjamin Fee 28-11A					
Well Position	+N/-S	0.0 ft	Northing:	1,613,033.60 ft	Latitude:	39.494371
	+E/-W	0.0 ft	Easting:	2,356,516.72 ft	Longitude:	-107.780438
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,943.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/24/2010	10.30	65.81	52,365

Design		Plan #2		
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	300.62

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	
415.1	6.45	300.62	414.6	6.2	-10.4	3.00	3.00	0.00	300.62	
6,300.8	6.45	300.62	6,263.1	343.0	-579.6	0.00	0.00	0.00	0.00	
6,623.4	0.00	0.00	6,585.0	352.2	-595.2	2.00	-2.00	0.00	180.00	Benjamin Fee 28-11A
9,773.4	0.00	0.00	9,735.0	352.2	-595.2	0.00	0.00	0.00	0.00	Benjamin Fee 28-11A
10,073.4	0.00	0.00	10,035.0	352.2	-595.2	0.00	0.00	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Project:</b>	Mamm Creek	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site:</b>	K28NW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP = 200' MD
300.0	3.00	300.62	300.0	1.3	-2.3	2.6	3.00	3.00	
400.0	6.00	300.62	399.6	5.3	-9.0	10.5	3.00	3.00	
415.1	6.45	300.62	414.6	6.2	-10.4	12.1	3.00	3.00	EOB at Inc. = 6.45°
500.0	6.45	300.62	499.0	11.0	-18.6	21.6	0.00	0.00	
600.0	6.45	300.62	598.4	16.7	-28.3	32.9	0.00	0.00	
700.0	6.45	300.62	697.7	22.5	-38.0	44.1	0.00	0.00	
800.0	6.45	300.62	797.1	28.2	-47.6	55.4	0.00	0.00	
900.0	6.45	300.62	896.5	33.9	-57.3	66.6	0.00	0.00	
1,000.0	6.45	300.62	995.8	39.6	-67.0	77.8	0.00	0.00	
1,100.0	6.45	300.62	1,095.2	45.4	-76.6	89.1	0.00	0.00	
1,200.0	6.45	300.62	1,194.6	51.1	-86.3	100.3	0.00	0.00	
1,300.0	6.45	300.62	1,293.9	56.8	-96.0	111.5	0.00	0.00	
1,400.0	6.45	300.62	1,393.3	62.5	-105.7	122.8	0.00	0.00	
1,500.0	6.45	300.62	1,492.7	68.2	-115.3	134.0	0.00	0.00	
1,510.0	6.45	300.62	1,502.6	68.8	-116.3	135.1	0.00	0.00	Surface Casing
1,600.0	6.45	300.62	1,592.0	74.0	-125.0	145.3	0.00	0.00	
1,700.0	6.45	300.62	1,691.4	79.7	-134.7	156.5	0.00	0.00	
1,800.0	6.45	300.62	1,790.8	85.4	-144.3	167.7	0.00	0.00	
1,900.0	6.45	300.62	1,890.1	91.1	-154.0	179.0	0.00	0.00	
2,000.0	6.45	300.62	1,989.5	96.9	-163.7	190.2	0.00	0.00	
2,100.0	6.45	300.62	2,088.9	102.6	-173.4	201.4	0.00	0.00	
2,200.0	6.45	300.62	2,188.2	108.3	-183.0	212.7	0.00	0.00	
2,217.9	6.45	300.62	2,206.0	109.3	-184.8	214.7	0.00	0.00	G Sand
2,300.0	6.45	300.62	2,287.6	114.0	-192.7	223.9	0.00	0.00	
2,400.0	6.45	300.62	2,387.0	119.8	-202.4	235.2	0.00	0.00	
2,500.0	6.45	300.62	2,486.3	125.5	-212.0	246.4	0.00	0.00	
2,600.0	6.45	300.62	2,585.7	131.2	-221.7	257.6	0.00	0.00	
2,700.0	6.45	300.62	2,685.1	136.9	-231.4	268.9	0.00	0.00	
2,800.0	6.45	300.62	2,784.4	142.6	-241.1	280.1	0.00	0.00	
2,900.0	6.45	300.62	2,883.8	148.4	-250.7	291.3	0.00	0.00	
3,000.0	6.45	300.62	2,983.2	154.1	-260.4	302.6	0.00	0.00	
3,100.0	6.45	300.62	3,082.5	159.8	-270.1	313.8	0.00	0.00	
3,200.0	6.45	300.62	3,181.9	165.5	-279.7	325.0	0.00	0.00	
3,300.0	6.45	300.62	3,281.3	171.3	-289.4	336.3	0.00	0.00	
3,400.0	6.45	300.62	3,380.6	177.0	-299.1	347.5	0.00	0.00	
3,500.0	6.45	300.62	3,480.0	182.7	-308.8	358.8	0.00	0.00	
3,600.0	6.45	300.62	3,579.4	188.4	-318.4	370.0	0.00	0.00	
3,700.0	6.45	300.62	3,678.7	194.2	-328.1	381.2	0.00	0.00	
3,800.0	6.45	300.62	3,778.1	199.9	-337.8	392.5	0.00	0.00	
3,900.0	6.45	300.62	3,877.5	205.6	-347.4	403.7	0.00	0.00	
4,000.0	6.45	300.62	3,976.8	211.3	-357.1	414.9	0.00	0.00	
4,100.0	6.45	300.62	4,076.2	217.0	-366.8	426.2	0.00	0.00	
4,200.0	6.45	300.62	4,175.6	222.8	-376.4	437.4	0.00	0.00	
4,300.0	6.45	300.62	4,274.9	228.5	-386.1	448.7	0.00	0.00	
4,375.5	6.45	300.62	4,350.0	232.8	-393.4	457.1	0.00	0.00	Ohio Creek
4,400.0	6.45	300.62	4,374.3	234.2	-395.8	459.9	0.00	0.00	
4,500.0	6.45	300.62	4,473.7	239.9	-405.5	471.1	0.00	0.00	
4,600.0	6.45	300.62	4,573.0	245.7	-415.1	482.4	0.00	0.00	
4,700.0	6.45	300.62	4,672.4	251.4	-424.8	493.6	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Project:</b>	Mamm Creek	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site:</b>	K28NW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,800.0	6.45	300.62	4,771.8	257.1	-434.5	504.8	0.00	0.00	
4,850.5	6.45	300.62	4,822.0	260.0	-439.4	510.5	0.00	0.00	Mesa Verde
4,900.0	6.45	300.62	4,871.1	262.8	-444.1	516.1	0.00	0.00	
5,000.0	6.45	300.62	4,970.5	268.6	-453.8	527.3	0.00	0.00	
5,100.0	6.45	300.62	5,069.9	274.3	-463.5	538.6	0.00	0.00	
5,200.0	6.45	300.62	5,169.2	280.0	-473.2	549.8	0.00	0.00	
5,300.0	6.45	300.62	5,268.6	285.7	-482.8	561.0	0.00	0.00	
5,400.0	6.45	300.62	5,368.0	291.4	-492.5	572.3	0.00	0.00	
5,436.3	6.45	300.62	5,404.0	293.5	-496.0	576.3	0.00	0.00	Williams Fork
5,500.0	6.45	300.62	5,467.3	297.2	-502.2	583.5	0.00	0.00	
5,600.0	6.45	300.62	5,566.7	302.9	-511.8	594.7	0.00	0.00	
5,700.0	6.45	300.62	5,666.1	308.6	-521.5	606.0	0.00	0.00	
5,800.0	6.45	300.62	5,765.4	314.3	-531.2	617.2	0.00	0.00	
5,900.0	6.45	300.62	5,864.8	320.1	-540.9	628.5	0.00	0.00	
6,000.0	6.45	300.62	5,964.2	325.8	-550.5	639.7	0.00	0.00	
6,100.0	6.45	300.62	6,063.5	331.5	-560.2	650.9	0.00	0.00	
6,200.0	6.45	300.62	6,162.9	337.2	-569.9	662.2	0.00	0.00	
6,300.0	6.45	300.62	6,262.3	342.9	-579.5	673.4	0.00	0.00	
6,300.8	6.45	300.62	6,263.1	343.0	-579.6	673.5	0.00	0.00	Start Drop -2.00
6,400.0	4.47	300.62	6,361.8	347.8	-587.7	682.9	2.00	-2.00	
6,500.0	2.47	300.62	6,461.6	350.9	-592.9	689.0	2.00	-2.00	
6,600.0	0.47	300.62	6,561.6	352.2	-595.1	691.5	2.00	-2.00	
6,623.4	0.00	0.00	6,585.0	352.2	-595.2	691.6	2.00	-2.00	EOD at Inc. = 0° - Top of Gas - Benjamin Fee 2
6,700.0	0.00	0.00	6,661.6	352.2	-595.2	691.6	0.00	0.00	
6,800.0	0.00	0.00	6,761.6	352.2	-595.2	691.6	0.00	0.00	
6,900.0	0.00	0.00	6,861.6	352.2	-595.2	691.6	0.00	0.00	
7,000.0	0.00	0.00	6,961.6	352.2	-595.2	691.6	0.00	0.00	
7,100.0	0.00	0.00	7,061.6	352.2	-595.2	691.6	0.00	0.00	
7,200.0	0.00	0.00	7,161.6	352.2	-595.2	691.6	0.00	0.00	
7,300.0	0.00	0.00	7,261.6	352.2	-595.2	691.6	0.00	0.00	
7,400.0	0.00	0.00	7,361.6	352.2	-595.2	691.6	0.00	0.00	
7,500.0	0.00	0.00	7,461.6	352.2	-595.2	691.6	0.00	0.00	
7,600.0	0.00	0.00	7,561.6	352.2	-595.2	691.6	0.00	0.00	
7,700.0	0.00	0.00	7,661.6	352.2	-595.2	691.6	0.00	0.00	
7,800.0	0.00	0.00	7,761.6	352.2	-595.2	691.6	0.00	0.00	
7,832.4	0.00	0.00	7,794.0	352.2	-595.2	691.6	0.00	0.00	Coal Ridge
7,900.0	0.00	0.00	7,861.6	352.2	-595.2	691.6	0.00	0.00	
8,000.0	0.00	0.00	7,961.6	352.2	-595.2	691.6	0.00	0.00	
8,100.0	0.00	0.00	8,061.6	352.2	-595.2	691.6	0.00	0.00	
8,200.0	0.00	0.00	8,161.6	352.2	-595.2	691.6	0.00	0.00	
8,300.0	0.00	0.00	8,261.6	352.2	-595.2	691.6	0.00	0.00	
8,400.0	0.00	0.00	8,361.6	352.2	-595.2	691.6	0.00	0.00	
8,498.4	0.00	0.00	8,460.0	352.2	-595.2	691.6	0.00	0.00	Base Cameo A Coal
8,500.0	0.00	0.00	8,461.6	352.2	-595.2	691.6	0.00	0.00	
8,593.4	0.00	0.00	8,555.0	352.2	-595.2	691.6	0.00	0.00	Rollins
8,600.0	0.00	0.00	8,561.6	352.2	-595.2	691.6	0.00	0.00	
8,700.0	0.00	0.00	8,661.6	352.2	-595.2	691.6	0.00	0.00	
8,800.0	0.00	0.00	8,761.6	352.2	-595.2	691.6	0.00	0.00	
8,900.0	0.00	0.00	8,861.6	352.2	-595.2	691.6	0.00	0.00	
9,000.0	0.00	0.00	8,961.6	352.2	-595.2	691.6	0.00	0.00	
9,100.0	0.00	0.00	9,061.6	352.2	-595.2	691.6	0.00	0.00	
9,200.0	0.00	0.00	9,161.6	352.2	-595.2	691.6	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Project:</b>	Mamm Creek	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site:</b>	K28NW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,218.4	0.00	0.00	9,180.0	352.2	-595.2	691.6	0.00	0.00	Cozzette
9,300.0	0.00	0.00	9,261.6	352.2	-595.2	691.6	0.00	0.00	
9,400.0	0.00	0.00	9,361.6	352.2	-595.2	691.6	0.00	0.00	
9,473.4	0.00	0.00	9,435.0	352.2	-595.2	691.6	0.00	0.00	Corcoran
9,500.0	0.00	0.00	9,461.6	352.2	-595.2	691.6	0.00	0.00	
9,600.0	0.00	0.00	9,561.6	352.2	-595.2	691.6	0.00	0.00	
9,700.0	0.00	0.00	9,661.6	352.2	-595.2	691.6	0.00	0.00	
9,773.4	0.00	0.00	9,735.0	352.2	-595.2	691.6	0.00	0.00	TD at 9773' MD - Benjamin Fee 28-11A BHL
9,800.0	0.00	0.00	9,761.6	352.2	-595.2	691.6	0.00	0.00	
9,900.0	0.00	0.00	9,861.6	352.2	-595.2	691.6	0.00	0.00	
10,000.0	0.00	0.00	9,961.6	352.2	-595.2	691.6	0.00	0.00	
10,073.4	0.00	0.00	10,035.0	352.2	-595.2	691.6	0.00	0.00	Permit TD at 10,073' MD

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
Benjamin Fee 28-11A Tr - plan hits target center - Circle (radius 25.0)	0.00	0.00	6,585.0	352.2	-595.2	1,613,400.67	2,355,930.52	39.495338	-107.782547
Benjamin Fee 28-11A Bl - plan hits target center - Circle (radius 60.0)	0.00	0.00	9,735.0	352.2	-595.2	1,613,400.67	2,355,930.52	39.495338	-107.782547

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,510.0	1,502.6	Surface Casing			

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,217.9	2,206.0	G Sand				
4,375.5	4,350.0	Ohio Creek				
4,850.5	4,822.0	Mesa Verde				
5,436.3	5,404.0	Williams Fork				
6,623.4	6,585.0	Top of Gas				
7,832.4	7,794.0	Coal Ridge				
8,498.4	8,460.0	Base Cameo A Coal				
8,593.4	8,555.0	Rollins				
9,218.4	9,180.0	Cozzette				
9,473.4	9,435.0	Corcoran				

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Project:</b>	Mamm Creek	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site:</b>	K28NW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

### 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' MD
415.1	414.6	6.2	-10.4	EOB at Inc. = 6.45°
6,300.8	6,263.1	343.0	-579.6	Start Drop -2.00
6,623.4	6,585.0	352.2	-595.2	EOD at Inc. = 0°
9,773.4	9,735.0	352.2	-595.2	TD at 9773' MD
10,073.4	10,035.0	352.2	-595.2	Permit TD at 10,073' MD

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

**Mamm Creek**

**K28NW Pad**

**Benjamin Fee 28-11A**

**DD**

**Plan #2**

## **Anticollision Report**

**23 November, 2010**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #2
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria
<b>Interpolation Method:</b>	Stations
<b>Depth Range:</b>	0.0 to 99,999.0ft
<b>Results Limited by:</b>	Maximum center-center distance of 828.6ft
<b>Warning Levels Evaluated at:</b>	2.00 Sigma
<b>Error Model:</b>	Systematic Ellipse
<b>Scan Method:</b>	Closest Approach 3D
<b>Error Surface:</b>	Elliptical Conic

<b>Survey Tool Program</b>	<b>Date</b>	11/23/2010
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>
0.0	10,073.4	Plan #2 (DD)
		<b>Tool Name</b>
		MWD
		<b>Description</b>
		Geolink MWD



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance		Separation Factor	Warning
			Between Centres (ft)	Between Ellipses (ft)		
K28NW Pad						
Benjamin 28-11 Existing - Existing - Existing	502.1	498.7	136.7	134.9	76.056	CC, ES
Benjamin 28-11 Existing - Existing - Existing	2,100.0	2,077.2	273.0	264.8	33.198	SF
Benjamin Federal 28-12B2 - DD - Plan #2	200.0	200.0	16.8	16.1	26.966	CC, ES
Benjamin Federal 28-12B2 - DD - Plan #2	600.0	599.5	30.0	27.5	11.786	SF
Benjamin Federal 28-12C1 - DD - Plan #2	200.0	200.0	33.9	33.3	54.518	CC, ES
Benjamin Federal 28-12C1 - DD - Plan #2	1,500.0	1,500.0	104.2	96.9	14.186	SF
Benjamin Federal 28-12C2 - DD - Plan #2	421.4	409.8	110.1	108.8	79.420	CC, ES
Benjamin Federal 28-12C2 - DD - Plan #2	800.0	762.1	148.6	145.8	53.235	SF
Benjamin Federal 28-13B1 - DD - Plan #2	417.0	406.8	100.8	99.4	73.052	CC, ES
Benjamin Federal 28-13B1 - DD - Plan #2	800.0	763.9	142.1	139.3	49.885	SF
Benjamin Federal 28-13B2 - DD - Plan #2	382.7	373.7	107.9	106.6	85.555	CC
Benjamin Federal 28-13B2 - DD - Plan #2	415.1	404.4	107.9	106.6	78.294	ES
Benjamin Federal 28-13B2 - DD - Plan #2	800.0	761.3	151.4	148.5	52.478	SF
Benjamin Federal 28-13C1 - DD - Plan #2	329.4	323.7	99.7	98.6	92.869	CC
Benjamin Federal 28-13C1 - DD - Plan #2	400.0	390.9	99.9	98.6	75.029	ES
Benjamin Federal 28-13C1 - DD - Plan #2	700.0	671.6	126.9	124.4	50.267	SF
Benjamin Federal 28-13C2 - DD - Plan #2	277.8	274.3	108.1	107.2	121.392	CC
Benjamin Federal 28-13C2 - DD - Plan #2	300.0	295.4	108.1	107.2	111.787	ES
Benjamin Federal 28-13C2 - DD - Plan #2	800.0	759.4	158.3	155.3	53.557	SF
Benjamin Federal 28-14B1 - DD - Plan #2	200.0	200.0	51.0	50.4	82.071	CC, ES
Benjamin Federal 28-14B1 - DD - Plan #2	5,800.0	5,741.5	823.9	796.9	30.479	SF
Benjamin Federal 28-14B2 - DD - Plan #2	200.0	200.0	115.8	115.2	186.352	CC
Benjamin Federal 28-14B2 - DD - Plan #2	300.0	295.5	116.1	115.1	119.518	ES
Benjamin Federal 28-14B2 - DD - Plan #2	4,200.0	4,105.1	818.6	800.2	44.531	SF
Benjamin Federal 28-14C - DD - Plan #2	291.1	287.9	105.3	104.4	111.769	CC
Benjamin Federal 28-14C - DD - Plan #2	300.0	296.5	105.4	104.4	108.160	ES
Benjamin Federal 28-14C - DD - Plan #2	800.0	769.9	160.7	157.6	52.421	SF
Benjamin Federal 28-16C - DD - Plan #2	200.0	200.0	43.0	42.4	69.265	CC, ES
Benjamin Federal 28-16C - DD - Plan #2	400.0	394.4	59.8	58.5	44.807	SF
Benjamin Federal 33-3B - DD - Plan #2	419.2	414.1	110.5	109.1	76.024	CC, ES
Benjamin Federal 33-3B - DD - Plan #2	700.0	674.6	136.3	133.6	51.102	SF
Benjamin Federal 33-4B - DD - Plan #2	200.0	200.0	110.8	110.2	178.289	CC
Benjamin Federal 33-4B - DD - Plan #2	300.0	295.1	111.1	110.1	114.810	ES
Benjamin Federal 33-4B - DD - Plan #2	800.0	756.6	168.3	165.3	56.529	SF
Benjamin Fee 28-10D2 - DD - Plan #2	200.0	200.0	11.7	11.1	18.849	CC, ES
Benjamin Fee 28-10D2 - DD - Plan #2	300.0	299.3	16.2	15.2	16.652	SF
Benjamin Fee 28-11B - DD - Plan #2	200.0	200.0	17.1	16.5	27.552	CC, ES
Benjamin Fee 28-11B - DD - Plan #2	8,947.4	8,976.6	349.9	312.6	9.385	SF
Benjamin Fee 28-15A - DD - Plan #2	200.0	200.0	26.8	26.2	43.097	CC, ES
Benjamin Fee 28-15A - DD - Plan #2	300.0	298.7	30.8	29.8	31.647	SF
Benjamin Fee 28-6C - DD - Plan #2	200.0	200.0	26.8	26.2	43.097	CC, ES
Benjamin Fee 28-6C - DD - Plan #2	9,000.0	9,054.2	680.4	642.9	18.130	SF
Benjamin Fee 28-9B - DD - Plan #2	200.0	200.0	12.0	11.4	19.273	CC, ES
Benjamin Fee 28-9B - DD - Plan #2	300.0	299.2	15.3	14.4	15.713	SF
Benjamin Fee 33-1B - DD - Plan #2	750.2	749.2	57.5	54.5	19.101	CC, ES
Benjamin Fee 33-1B - DD - Plan #2	800.0	796.2	59.4	56.1	18.187	SF
GMR 28-7D Existing - DD - Schlumberger Surveys	842.3	849.9	40.4	36.6	10.642	CC, ES
GMR 28-7D Existing - DD - Schlumberger Surveys	900.0	905.6	43.3	39.2	10.533	SF
GMU 28-14D Existing - Schlumberger Surveys - Schlumb	465.2	461.2	155.9	154.2	95.274	CC
GMU 28-14D Existing - Schlumberger Surveys - Schlumb	500.0	495.4	156.0	154.2	87.535	ES
GMU 28-14D Existing - Schlumberger Surveys - Schlumb	1,200.0	1,158.7	222.6	217.9	46.735	SF

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin 28-11 Existing - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 100-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	-129.46	-88.6	-107.6	139.4					
100.0	100.0	99.3	99.3	0.1	0.1	-129.47	-88.8	-107.8	139.7	139.4	0.27	514.413		
200.0	200.0	199.2	199.2	0.3	0.3	-129.55	-89.3	-108.1	140.2	139.6	0.62	225.913		
300.0	300.0	299.3	299.3	0.5	0.5	-71.48	-90.1	-108.0	139.8	138.8	0.98	143.043		
400.0	399.6	399.1	399.1	0.7	0.7	-75.28	-91.6	-107.2	138.0	136.6	1.37	100.585		
415.1	414.6	413.8	413.8	0.8	0.7	-76.06	-91.8	-107.1	137.7	136.2	1.43	96.016		
500.0	499.0	496.6	496.6	1.0	0.8	-80.61	-93.8	-106.4	136.7	134.9	1.79	76.435		
502.1	501.1	498.7	498.6	1.0	0.8	-80.73	-93.8	-106.4	136.7	134.9	1.80	76.056 CC, ES		
600.0	598.4	594.7	594.6	1.2	1.0	-85.95	-96.7	-106.3	137.7	135.5	2.22	62.164		
700.0	697.7	692.4	692.2	1.5	1.2	-90.98	-100.1	-107.0	140.8	138.1	2.64	53.277		
800.0	797.1	791.1	790.8	1.7	1.4	-95.73	-104.1	-108.1	145.6	142.6	3.07	47.467		
900.0	896.5	889.4	889.1	2.0	1.6	-100.05	-108.4	-109.6	151.8	148.3	3.49	43.526		
1,000.0	995.8	988.1	987.6	2.2	1.8	-103.87	-112.9	-111.7	159.2	155.3	3.90	40.794		
1,100.0	1,095.2	1,087.2	1,086.6	2.5	1.9	-107.22	-117.6	-114.2	167.4	163.1	4.31	38.809		
1,200.0	1,194.6	1,186.6	1,185.8	2.8	2.1	-110.19	-122.2	-116.9	176.2	171.4	4.72	37.299		
1,300.0	1,293.9	1,285.5	1,284.6	3.0	2.3	-112.81	-126.7	-119.7	185.3	180.2	5.13	36.138		
1,400.0	1,393.3	1,384.6	1,383.5	3.3	2.5	-115.18	-131.5	-122.6	195.0	189.4	5.53	35.250		
1,500.0	1,492.7	1,483.3	1,482.1	3.6	2.7	-117.34	-136.3	-125.5	205.1	199.1	5.93	34.578		
1,600.0	1,592.0	1,581.9	1,580.6	3.8	2.9	-119.48	-141.4	-127.5	215.7	209.4	6.32	34.109		
1,700.0	1,691.4	1,681.3	1,679.7	4.1	3.1	-121.57	-146.6	-129.2	226.7	220.0	6.71	33.771		
1,800.0	1,790.8	1,780.5	1,778.9	4.3	3.3	-123.56	-151.7	-130.3	237.9	230.8	7.10	33.514		
1,900.0	1,890.1	1,879.5	1,877.7	4.6	3.5	-125.44	-156.7	-131.2	249.2	241.8	7.48	33.337		
2,000.0	1,989.5	1,978.2	1,976.3	4.9	3.7	-127.21	-161.8	-131.8	261.0	253.1	7.85	33.237		
2,100.0	2,088.9	2,077.2	2,075.2	5.1	3.9	-128.91	-166.9	-132.0	273.0	264.8	8.22	33.198 SF		
2,200.0	2,188.2	2,176.0	2,173.8	5.4	4.1	-130.52	-171.9	-132.0	285.2	276.6	8.59	33.202		
2,300.0	2,287.6	2,275.1	2,272.8	5.7	4.3	-132.07	-176.9	-131.5	297.7	288.7	8.95	33.248		
2,400.0	2,387.0	2,373.9	2,371.5	5.9	4.4	-133.57	-181.7	-130.7	310.3	301.0	9.31	33.323		
2,500.0	2,486.3	2,473.7	2,471.1	6.2	4.6	-135.00	-186.5	-129.7	323.0	313.4	9.67	33.413		
2,600.0	2,585.7	2,572.9	2,570.3	6.4	4.8	-136.37	-190.9	-128.5	335.7	325.7	10.02	33.500		
2,700.0	2,685.1	2,671.5	2,668.7	6.7	5.0	-137.65	-195.3	-127.2	348.6	338.2	10.37	33.607		
2,800.0	2,784.4	2,770.0	2,767.1	7.0	5.2	-138.84	-199.8	-125.8	361.7	351.0	10.72	33.735		
2,900.0	2,883.8	2,868.4	2,865.4	7.2	5.4	-139.93	-204.3	-124.4	375.1	364.0	11.07	33.879		
3,000.0	2,983.2	2,966.4	2,963.3	7.5	5.6	-140.96	-209.0	-123.0	388.7	377.3	11.42	34.043		
3,100.0	3,082.5	3,064.7	3,061.5	7.8	5.8	-141.94	-213.8	-121.3	402.7	391.0	11.77	34.227		
3,200.0	3,181.9	3,163.0	3,159.6	8.0	6.0	-142.88	-218.6	-119.4	416.9	404.8	12.11	34.422		
3,300.0	3,281.3	3,261.5	3,258.0	8.3	6.1	-143.77	-223.6	-117.5	431.3	418.8	12.46	34.622		
3,400.0	3,380.6	3,359.9	3,356.3	8.5	6.3	-144.60	-228.5	-115.5	445.8	433.0	12.80	34.824		
3,500.0	3,480.0	3,458.3	3,454.5	8.8	6.5	-145.39	-233.5	-113.3	460.5	447.4	13.15	35.030		
3,600.0	3,579.4	3,556.5	3,552.5	9.1	6.7	-146.13	-238.6	-111.2	475.4	461.9	13.49	35.237		
3,700.0	3,678.7	3,654.6	3,650.5	9.3	6.9	-146.82	-243.8	-109.0	490.5	476.7	13.84	35.447		
3,800.0	3,778.1	3,753.0	3,748.7	9.6	7.1	-147.46	-249.1	-106.9	505.7	491.5	14.19	35.649		
3,900.0	3,877.5	3,851.7	3,847.2	9.9	7.3	-148.05	-254.5	-104.9	521.0	506.5	14.53	35.850		
4,000.0	3,976.8	3,950.5	3,945.8	10.1	7.5	-148.60	-259.9	-102.9	536.3	521.5	14.88	36.037		
4,100.0	4,076.2	4,049.3	4,044.5	10.4	7.7	-149.11	-265.5	-101.1	551.7	536.5	15.23	36.218		
4,200.0	4,175.6	4,149.4	4,144.4	10.7	7.9	-149.58	-271.0	-99.3	567.0	551.5	15.59	36.378		
4,300.0	4,274.9	4,250.5	4,245.4	10.9	8.1	-150.05	-276.2	-97.7	582.0	566.1	15.94	36.510		
4,400.0	4,374.3	4,352.4	4,347.1	11.2	8.3	-150.54	-280.8	-95.8	596.6	580.3	16.29	36.620		
4,500.0	4,473.7	4,453.2	4,447.8	11.4	8.5	-151.10	-284.3	-93.2	610.8	594.1	16.63	36.718		
4,600.0	4,573.0	4,552.2	4,546.7	11.7	8.7	-151.68	-287.5	-90.4	624.8	607.8	16.97	36.819		
4,700.0	4,672.4	4,651.8	4,646.2	12.0	8.8	-152.25	-290.5	-87.4	638.9	621.6	17.30	36.921		
4,800.0	4,771.8	4,752.3	4,746.7	12.2	9.0	-152.83	-293.2	-84.2	652.8	635.2	17.64	37.012		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> K28NW Pad - Benjamin 28-11 Existing - Existing - Existing													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 100-MWD													<b>Offset Well Error:</b>	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		
4,900.0	4,871.1	4,853.0	4,847.3	12.5	9.2	-153.42	-295.5	-80.8	666.6	648.6	17.97	37.092		
5,000.0	4,970.5	4,952.7	4,946.9	12.8	9.4	-154.01	-297.4	-77.4	680.1	661.8	18.30	37.165		
5,100.0	5,069.9	5,050.5	5,044.6	13.0	9.5	-154.56	-299.2	-74.0	693.8	675.1	18.63	37.245		
5,200.0	5,169.2	5,147.3	5,141.3	13.3	9.7	-155.09	-301.2	-70.3	707.7	688.8	18.95	37.343		
5,300.0	5,268.6	5,244.5	5,238.5	13.5	9.9	-155.61	-303.4	-66.6	722.0	702.7	19.28	37.451		
5,400.0	5,368.0	5,343.0	5,336.9	13.8	10.1	-156.10	-305.9	-62.9	736.4	716.8	19.61	37.559		
5,500.0	5,467.3	5,441.6	5,435.3	14.1	10.3	-156.56	-308.4	-59.2	750.9	731.0	19.94	37.663		
5,600.0	5,566.7	5,540.0	5,533.7	14.3	10.4	-157.00	-311.0	-55.6	765.6	745.3	20.27	37.769		
5,700.0	5,666.1	5,639.0	5,632.6	14.6	10.6	-157.42	-313.6	-52.0	780.2	759.6	20.60	37.868		
5,800.0	5,765.4	5,738.8	5,732.2	14.9	10.8	-157.82	-316.3	-48.4	794.9	773.9	20.94	37.962		
5,900.0	5,864.8	5,839.9	5,833.3	15.1	11.0	-158.18	-319.0	-45.4	809.2	788.0	21.28	38.029		
6,000.0	5,964.2	5,938.5	5,931.9	15.4	11.2	-158.48	-322.0	-43.0	823.6	802.0	21.62	38.090		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-12B2 - DD - Plan #2													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	-16.8	0.0	16.8					
100.0	100.0	100.0	100.0	0.1	0.1	-180.00	-16.8	0.0	16.8	16.5	0.27	61.538		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-16.8	0.0	16.8	16.1	0.62	26.966 CC, ES		
300.0	300.0	300.1	300.1	0.5	0.5	-119.50	-16.3	-2.6	17.7	16.7	0.99	17.949		
400.0	399.6	400.2	399.8	0.7	0.7	-116.76	-15.1	-10.4	20.5	19.1	1.42	14.465		
415.1	414.6	415.3	414.8	0.8	0.8	-116.28	-14.9	-12.0	21.1	19.6	1.50	14.114		
500.0	499.0	500.1	498.9	1.0	1.0	-109.62	-13.1	-23.2	24.6	22.6	1.94	12.641		
600.0	598.4	599.5	596.6	1.2	1.4	-94.83	-10.3	-41.1	30.0	27.5	2.55	11.786 SF		
700.0	697.7	697.8	692.2	1.5	1.8	-78.41	-6.8	-63.7	39.4	36.3	3.10	12.689		
800.0	797.1	794.5	785.0	1.7	2.3	-64.96	-2.6	-90.7	54.3	50.7	3.55	15.298		
900.0	896.5	889.2	874.4	2.0	3.0	-55.38	2.3	-121.5	74.9	71.0	3.92	19.120		
1,000.0	995.8	981.8	960.2	2.2	3.6	-48.76	7.6	-155.9	101.0	96.8	4.26	23.738		
1,100.0	1,095.2	1,077.2	1,047.8	2.5	4.3	-44.33	13.5	-193.2	129.8	125.2	4.59	28.252		
1,200.0	1,194.6	1,172.6	1,135.4	2.8	5.0	-41.52	19.3	-230.4	159.0	154.0	4.95	32.134		
1,300.0	1,293.9	1,268.0	1,223.0	3.0	5.8	-39.58	25.1	-267.7	188.5	183.1	5.31	35.477		
1,400.0	1,393.3	1,363.4	1,310.6	3.3	6.5	-38.16	31.0	-305.0	218.1	212.4	5.68	38.374		
1,500.0	1,492.7	1,458.8	1,398.3	3.6	7.2	-37.08	36.8	-342.2	247.8	241.7	6.06	40.904		
1,600.0	1,592.0	1,554.2	1,485.9	3.8	7.9	-36.23	42.6	-379.5	277.5	271.1	6.43	43.129		
1,700.0	1,691.4	1,649.6	1,573.5	4.1	8.6	-35.55	48.4	-416.8	307.3	300.5	6.81	45.100		
1,800.0	1,790.8	1,745.0	1,661.1	4.3	9.4	-34.99	54.3	-454.0	337.2	330.0	7.20	46.857		
1,900.0	1,890.1	1,840.4	1,748.7	4.6	10.1	-34.52	60.1	-491.3	367.0	359.5	7.58	48.433		
2,000.0	1,989.5	1,935.8	1,836.4	4.9	10.8	-34.12	65.9	-528.6	396.9	389.0	7.96	49.854		
2,100.0	2,088.9	2,031.2	1,924.0	5.1	11.5	-33.77	71.8	-565.8	426.8	418.5	8.35	51.142		
2,200.0	2,188.2	2,126.6	2,011.6	5.4	12.2	-33.47	77.6	-603.1	456.7	448.0	8.73	52.315		
2,300.0	2,287.6	2,222.0	2,099.2	5.7	13.0	-33.21	83.4	-640.4	486.7	477.5	9.12	53.386		
2,400.0	2,387.0	2,317.3	2,186.9	5.9	13.7	-32.98	89.3	-677.6	516.6	507.1	9.50	54.370		
2,500.0	2,486.3	2,412.7	2,274.5	6.2	14.4	-32.77	95.1	-714.9	546.5	536.6	9.89	55.276		
2,600.0	2,585.7	2,508.1	2,362.1	6.4	15.1	-32.59	100.9	-752.2	576.5	566.2	10.27	56.112		
2,700.0	2,685.1	2,603.5	2,449.7	6.7	15.9	-32.42	106.7	-789.5	606.4	595.8	10.66	56.888		
2,800.0	2,784.4	2,698.9	2,537.3	7.0	16.6	-32.27	112.6	-826.7	636.4	625.3	11.05	57.608		
2,900.0	2,883.8	2,794.3	2,625.0	7.2	17.3	-32.13	118.4	-864.0	666.3	654.9	11.43	58.279		
3,000.0	2,983.2	2,889.7	2,712.6	7.5	18.0	-32.00	124.2	-901.3	696.3	684.5	11.82	58.906		
3,100.0	3,082.5	2,985.1	2,800.2	7.8	18.8	-31.89	130.1	-938.5	726.3	714.0	12.21	59.492		
3,200.0	3,181.9	3,080.5	2,887.8	8.0	19.5	-31.78	135.9	-975.8	756.2	743.6	12.59	60.042		
3,300.0	3,281.3	3,175.9	2,975.4	8.3	20.2	-31.68	141.7	-1,013.1	786.2	773.2	12.98	60.559		
3,400.0	3,380.6	3,271.3	3,063.1	8.5	20.9	-31.59	147.6	-1,050.3	816.1	802.8	13.37	61.046		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-12C1 - DD - Plan #2													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	-33.9	0.0	33.9					
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-33.9	0.0	33.9	33.6	0.27	124.414		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-33.9	0.0	33.9	33.3	0.62	54.518 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-124.24	-33.9	0.0	35.3	34.3	0.98	36.149		
400.0	399.6	399.6	399.6	0.7	0.7	-133.39	-33.9	0.0	40.2	38.9	1.35	29.871		
415.1	414.6	414.6	414.6	0.8	0.7	-135.01	-33.9	0.0	41.4	40.0	1.40	29.505		
500.0	499.0	499.0	499.0	1.0	0.8	-142.97	-33.9	0.0	48.6	46.9	1.71	28.409		
600.0	598.4	598.4	598.4	1.2	1.0	-149.66	-33.9	0.0	58.0	55.9	2.07	28.067		
700.0	697.7	697.7	697.7	1.5	1.2	-154.45	-33.9	0.0	67.9	65.5	2.42	28.121		
800.0	797.1	798.3	798.3	1.7	1.4	-157.68	-33.9	-0.6	77.9	75.1	2.77	28.143		
900.0	896.5	900.8	900.6	2.0	1.5	-157.81	-33.8	-5.9	85.0	81.9	3.14	27.096		
1,000.0	995.8	1,003.5	1,002.7	2.2	1.8	-155.14	-33.5	-16.8	89.0	85.4	3.55	25.044		
1,100.0	1,095.2	1,105.8	1,103.7	2.5	2.0	-149.81	-33.2	-33.0	90.2	86.2	4.05	22.285		
1,200.0	1,194.6	1,207.1	1,202.8	2.8	2.4	-141.63	-32.7	-54.4	90.1	85.4	4.69	19.216		
1,232.2	1,226.6	1,239.5	1,234.1	2.9	2.5	-138.36	-32.6	-62.4	90.0	85.1	4.94	18.227		
1,300.0	1,293.9	1,307.0	1,299.1	3.0	2.8	-130.51	-32.2	-80.6	90.5	85.0	5.50	16.433		
1,400.0	1,393.3	1,404.8	1,392.1	3.3	3.3	-117.06	-31.6	-111.1	94.3	87.8	6.45	14.614		
1,500.0	1,492.7	1,500.0	1,480.9	3.6	3.9	-102.96	-30.8	-145.3	104.2	96.9	7.35	14.186 SF		
1,600.0	1,592.0	1,592.8	1,565.7	3.8	4.6	-90.08	-30.1	-182.9	121.9	113.9	8.07	15.117		
1,700.0	1,691.4	1,686.0	1,649.6	4.1	5.4	-79.62	-29.2	-223.4	146.6	138.0	8.56	17.122		
1,800.0	1,790.8	1,779.7	1,734.0	4.3	6.1	-72.12	-28.4	-264.2	174.7	165.8	8.95	19.517		
1,900.0	1,890.1	1,873.4	1,818.4	4.6	6.9	-66.70	-27.5	-304.9	205.0	195.6	9.31	22.016		
2,000.0	1,989.5	1,967.1	1,902.8	4.9	7.6	-62.66	-26.7	-345.7	236.5	226.8	9.66	24.481		
2,100.0	2,088.9	2,060.9	1,987.2	5.1	8.4	-59.56	-25.8	-386.5	268.8	258.8	10.01	26.852		
2,200.0	2,188.2	2,154.6	2,071.5	5.4	9.2	-57.12	-25.0	-427.3	301.7	291.4	10.37	29.100		
2,300.0	2,287.6	2,248.3	2,155.9	5.7	9.9	-55.16	-24.1	-468.1	335.0	324.3	10.73	31.217		
2,400.0	2,387.0	2,342.0	2,240.3	5.9	10.7	-53.55	-23.3	-508.8	368.6	357.5	11.10	33.205		
2,500.0	2,486.3	2,435.8	2,324.7	6.2	11.5	-52.21	-22.4	-549.6	402.4	391.0	11.48	35.068		
2,600.0	2,585.7	2,529.5	2,409.1	6.4	12.3	-51.07	-21.6	-590.4	436.4	424.6	11.85	36.815		
2,700.0	2,685.1	2,623.2	2,493.5	6.7	13.1	-50.10	-20.7	-631.2	470.5	458.3	12.24	38.452		
2,800.0	2,784.4	2,716.9	2,577.8	7.0	13.8	-49.26	-19.9	-671.9	504.7	492.1	12.62	39.989		
2,900.0	2,883.8	2,810.7	2,662.2	7.2	14.6	-48.53	-19.0	-712.7	539.0	526.0	13.01	41.432		
3,000.0	2,983.2	2,904.4	2,746.6	7.5	15.4	-47.88	-18.2	-753.5	573.4	560.0	13.40	42.790		
3,100.0	3,082.5	2,998.1	2,831.0	7.8	16.2	-47.31	-17.3	-794.3	607.8	594.0	13.79	44.069		
3,200.0	3,181.9	3,091.8	2,915.4	8.0	17.0	-46.80	-16.5	-835.1	642.3	628.1	14.19	45.275		
3,300.0	3,281.3	3,185.6	2,999.8	8.3	17.8	-46.33	-15.6	-875.8	676.8	662.2	14.58	46.414		
3,400.0	3,380.6	3,279.3	3,084.1	8.5	18.6	-45.92	-14.8	-916.6	711.4	696.4	14.98	47.491		
3,500.0	3,480.0	3,373.0	3,168.5	8.8	19.4	-45.54	-13.9	-957.4	745.9	730.6	15.38	48.512		
3,600.0	3,579.4	3,466.7	3,252.9	9.1	20.1	-45.20	-13.1	-998.2	780.5	764.8	15.78	49.479		
3,700.0	3,678.7	3,560.4	3,337.3	9.3	20.9	-44.88	-12.2	-1,039.0	815.2	799.0	16.17	50.397		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-12C2 - DD - Plan #2													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	-76.69	25.5	-107.8	110.8					
100.0	100.0	100.0	100.0	0.1	0.1	-76.69	25.5	-107.8	110.8	110.5	0.27	406.863		
200.0	200.0	200.0	200.0	0.3	0.3	-76.69	25.5	-107.8	110.8	110.2	0.62	178.289		
300.0	300.0	294.9	294.8	0.5	0.5	-18.14	25.2	-110.1	110.6	109.6	0.96	114.886		
400.0	399.6	389.6	389.3	0.7	0.7	-20.66	24.1	-117.1	110.2	108.9	1.31	84.072		
415.1	414.6	403.8	403.4	0.8	0.7	-21.18	23.9	-118.6	110.2	108.8	1.36	80.760		
421.4	420.9	409.8	409.4	0.8	0.7	-21.41	23.8	-119.2	110.1	108.8	1.39	79.420 CC, ES		
500.0	499.0	484.0	483.0	1.0	1.0	-24.45	22.4	-128.7	111.8	110.1	1.67	66.881		
600.0	598.4	577.9	575.4	1.2	1.3	-28.53	20.1	-144.7	118.7	116.6	2.04	58.173		
700.0	697.7	670.7	666.0	1.5	1.7	-32.35	17.1	-164.9	131.0	128.5	2.41	54.267		
800.0	797.1	762.1	754.0	1.7	2.2	-35.58	13.5	-189.1	148.6	145.8	2.79	53.235 SF		
900.0	896.5	851.8	839.2	2.0	2.7	-38.11	9.4	-216.8	171.2	168.0	3.17	53.986		
1,000.0	995.8	939.9	921.5	2.2	3.3	-40.02	4.8	-247.8	198.6	195.0	3.55	55.865		
1,100.0	1,095.2	1,035.3	1,010.0	2.5	4.0	-41.56	-0.4	-283.2	228.0	224.1	3.96	57.602		
1,200.0	1,194.6	1,130.7	1,098.4	2.8	4.6	-42.76	-5.6	-318.5	257.6	253.3	4.37	58.959		
1,300.0	1,293.9	1,226.1	1,186.9	3.0	5.3	-43.70	-10.8	-353.9	287.3	282.5	4.79	60.027		
1,400.0	1,393.3	1,321.5	1,275.3	3.3	6.0	-44.47	-16.1	-389.2	317.0	311.8	5.21	60.877		
1,500.0	1,492.7	1,416.9	1,363.8	3.6	6.7	-45.11	-21.3	-424.6	346.8	341.1	5.63	61.559		
1,600.0	1,592.0	1,512.3	1,452.3	3.8	7.3	-45.65	-26.5	-459.9	376.6	370.5	6.06	62.114		
1,700.0	1,691.4	1,607.7	1,540.7	4.1	8.0	-46.11	-31.7	-495.3	406.4	399.9	6.50	62.569		
1,800.0	1,790.8	1,703.1	1,629.2	4.3	8.7	-46.50	-36.9	-530.6	436.2	429.3	6.93	62.947		
1,900.0	1,890.1	1,798.5	1,717.6	4.6	9.4	-46.85	-42.2	-566.0	466.1	458.7	7.37	63.264		
2,000.0	1,989.5	1,893.9	1,806.1	4.9	10.1	-47.15	-47.4	-601.3	496.0	488.2	7.81	63.531		
2,100.0	2,088.9	1,989.3	1,894.5	5.1	10.8	-47.42	-52.6	-636.7	525.9	517.6	8.25	63.758		
2,200.0	2,188.2	2,084.7	1,983.0	5.4	11.4	-47.66	-57.8	-672.0	555.8	547.1	8.69	63.953		
2,300.0	2,287.6	2,180.1	2,071.4	5.7	12.1	-47.88	-63.0	-707.4	585.7	576.5	9.13	64.121		
2,400.0	2,387.0	2,275.5	2,159.9	5.9	12.8	-48.07	-68.3	-742.8	615.6	606.0	9.58	64.267		
2,500.0	2,486.3	2,370.9	2,248.4	6.2	13.5	-48.25	-73.5	-778.1	645.5	635.5	10.02	64.395		
2,600.0	2,585.7	2,466.3	2,336.8	6.4	14.2	-48.41	-78.7	-813.5	675.4	664.9	10.47	64.508		
2,700.0	2,685.1	2,561.7	2,425.3	6.7	14.9	-48.56	-83.9	-848.8	705.3	694.4	10.92	64.607		
2,800.0	2,784.4	2,657.1	2,513.7	7.0	15.5	-48.69	-89.1	-884.2	735.3	723.9	11.37	64.695		
2,900.0	2,883.8	2,752.5	2,602.2	7.2	16.2	-48.82	-94.4	-919.5	765.2	753.4	11.81	64.774		
3,000.0	2,983.2	2,847.9	2,690.6	7.5	16.9	-48.93	-99.6	-954.9	795.1	782.9	12.26	64.844		
3,100.0	3,082.5	2,943.3	2,779.1	7.8	17.6	-49.04	-104.8	-990.2	825.1	812.4	12.71	64.907		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-13B1 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-80.28	17.1	-99.9	101.4					
100.0	100.0	100.0	100.0	0.1	0.1	-80.28	17.1	-99.9	101.4	101.1	0.27	372.266		
200.0	200.0	200.0	200.0	0.3	0.3	-80.28	17.1	-99.9	101.4	100.7	0.62	163.128		
300.0	300.0	295.4	295.4	0.5	0.5	-22.00	16.4	-102.2	101.2	100.2	0.96	104.890		
400.0	399.6	390.6	390.3	0.7	0.7	-25.32	14.4	-109.0	100.8	99.5	1.32	76.487		
415.1	414.6	404.9	404.5	0.8	0.7	-26.02	14.0	-110.4	100.8	99.4	1.37	73.441		
417.0	416.6	406.8	406.4	0.8	0.7	-26.11	13.9	-110.6	100.8	99.4	1.38	73.052 CC, ES		
500.0	499.0	485.4	484.3	1.0	1.0	-30.32	11.0	-120.3	102.7	101.0	1.69	60.831		
600.0	598.4	579.5	577.0	1.2	1.3	-35.59	6.3	-135.9	110.2	108.1	2.07	53.251		
700.0	697.7	672.5	667.7	1.5	1.7	-40.38	0.4	-155.6	123.4	120.9	2.46	50.231		
800.0	797.1	763.9	755.8	1.7	2.2	-44.29	-6.7	-179.1	142.1	139.3	2.85	49.885 SF		
900.0	896.5	853.5	840.8	2.0	2.7	-47.24	-14.8	-205.9	166.0	162.8	3.25	51.148		
1,000.0	995.8	940.8	922.3	2.2	3.3	-49.37	-23.7	-235.8	194.7	191.0	3.64	53.416		
1,100.0	1,095.2	1,033.4	1,007.7	2.5	4.0	-51.01	-34.0	-270.0	226.6	222.6	4.06	55.774		
1,200.0	1,194.6	1,127.9	1,094.9	2.8	4.7	-52.27	-44.6	-305.1	258.8	254.3	4.49	57.604		
1,300.0	1,293.9	1,222.5	1,182.1	3.0	5.3	-53.26	-55.1	-340.2	291.0	286.1	4.93	59.053		
1,400.0	1,393.3	1,317.0	1,269.2	3.3	6.0	-54.04	-65.7	-375.3	323.3	318.0	5.37	60.214		
1,500.0	1,492.7	1,411.6	1,356.4	3.6	6.7	-54.69	-76.2	-410.4	355.7	349.9	5.82	61.157		
1,600.0	1,592.0	1,506.1	1,443.6	3.8	7.4	-55.22	-86.8	-445.5	388.1	381.8	6.27	61.932		
1,700.0	1,691.4	1,600.7	1,530.7	4.1	8.1	-55.68	-97.3	-480.6	420.5	413.8	6.72	62.578		
1,800.0	1,790.8	1,695.2	1,617.9	4.3	8.8	-56.07	-107.9	-515.7	452.9	445.7	7.18	63.120		
1,900.0	1,890.1	1,789.8	1,705.1	4.6	9.5	-56.40	-118.4	-550.8	485.4	477.7	7.63	63.581		
2,000.0	1,989.5	1,884.3	1,792.2	4.9	10.2	-56.70	-129.0	-585.9	517.8	509.7	8.09	63.976		
2,100.0	2,088.9	1,978.9	1,879.4	5.1	10.9	-56.96	-139.5	-620.9	550.3	541.8	8.56	64.318		
2,200.0	2,188.2	2,073.5	1,966.5	5.4	11.6	-57.19	-150.1	-656.0	582.8	573.8	9.02	64.616		
2,300.0	2,287.6	2,168.0	2,053.7	5.7	12.3	-57.40	-160.6	-691.1	615.3	605.8	9.48	64.878		
2,400.0	2,387.0	2,262.6	2,140.9	5.9	13.0	-57.58	-171.2	-726.2	647.8	637.8	9.95	65.109		
2,500.0	2,486.3	2,357.1	2,228.0	6.2	13.7	-57.75	-181.7	-761.3	680.3	669.9	10.42	65.314		
2,600.0	2,585.7	2,451.7	2,315.2	6.4	14.4	-57.91	-192.3	-796.4	712.8	701.9	10.88	65.498		
2,700.0	2,685.1	2,546.2	2,402.4	6.7	15.1	-58.05	-202.8	-831.5	745.3	734.0	11.35	65.663		
2,800.0	2,784.4	2,640.8	2,489.5	7.0	15.8	-58.17	-213.4	-866.6	777.8	766.0	11.82	65.811		
2,900.0	2,883.8	2,735.3	2,576.7	7.2	16.5	-58.29	-223.9	-901.7	810.3	798.1	12.29	65.946		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-13B2 - DD - Plan #2													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	-85.36	8.7	-107.8	108.2					
100.0	100.0	100.0	100.0	0.1	0.1	-85.36	8.7	-107.8	108.2	107.9	0.27	397.240		
200.0	200.0	200.0	200.0	0.3	0.3	-85.36	8.7	-107.8	108.2	107.5	0.62	174.071		
300.0	300.0	295.2	295.2	0.5	0.5	-27.16	7.8	-110.0	108.0	107.1	0.96	111.939		
382.7	382.4	373.7	373.4	0.7	0.7	-29.91	5.6	-115.0	107.9	106.6	1.26	85.555 CC		
400.0	399.6	390.1	389.8	0.7	0.7	-30.69	4.9	-116.5	107.9	106.6	1.32	81.545		
415.1	414.6	404.4	404.0	0.8	0.7	-31.42	4.3	-117.8	107.9	106.6	1.38	78.294 ES		
500.0	499.0	484.5	483.4	1.0	1.0	-35.94	0.2	-127.2	110.2	108.5	1.70	64.773		
600.0	598.4	578.1	575.6	1.2	1.3	-41.42	-6.3	-141.9	118.2	116.1	2.09	56.521		
700.0	697.7	670.5	665.8	1.5	1.7	-46.42	-14.5	-160.6	132.0	129.5	2.49	53.088		
800.0	797.1	761.3	753.3	1.7	2.2	-50.51	-24.3	-182.7	151.4	148.5	2.89	52.478 SF		
900.0	896.5	850.2	837.7	2.0	2.7	-53.65	-35.5	-208.1	176.1	172.8	3.29	53.555		
1,000.0	995.8	936.7	918.6	2.2	3.3	-55.95	-47.9	-236.2	205.6	201.9	3.69	55.664		
1,100.0	1,095.2	1,024.3	999.0	2.5	3.9	-57.65	-61.8	-267.8	239.4	235.2	4.11	58.270		
1,200.0	1,194.6	1,117.8	1,084.6	2.8	4.6	-59.01	-77.0	-302.4	274.2	269.7	4.54	60.372		
1,300.0	1,293.9	1,211.4	1,170.2	3.0	5.3	-60.07	-92.3	-336.9	309.1	304.2	4.98	62.036		
1,400.0	1,393.3	1,304.9	1,255.8	3.3	6.1	-60.91	-107.5	-371.5	344.2	338.7	5.43	63.370		
1,500.0	1,492.7	1,398.5	1,341.4	3.6	6.8	-61.60	-122.7	-406.0	379.2	373.4	5.88	64.452		
1,600.0	1,592.0	1,492.0	1,427.0	3.8	7.5	-62.17	-137.9	-440.5	414.4	408.0	6.34	65.339		
1,700.0	1,691.4	1,585.6	1,512.6	4.1	8.2	-62.65	-153.2	-475.1	449.5	442.7	6.80	66.076		
1,800.0	1,790.8	1,679.2	1,598.2	4.3	8.9	-63.06	-168.4	-509.6	484.7	477.4	7.27	66.696		
1,900.0	1,890.1	1,772.7	1,683.9	4.6	9.6	-63.41	-183.6	-544.2	519.9	512.1	7.73	67.222		
2,000.0	1,989.5	1,866.3	1,769.5	4.9	10.3	-63.72	-198.8	-578.7	555.1	546.9	8.20	67.672		
2,100.0	2,088.9	1,959.8	1,855.1	5.1	11.1	-64.00	-214.1	-613.2	590.3	581.6	8.67	68.060		
2,200.0	2,188.2	2,053.4	1,940.7	5.4	11.8	-64.24	-229.3	-647.8	625.5	616.4	9.15	68.398		
2,300.0	2,287.6	2,147.0	2,026.3	5.7	12.5	-64.46	-244.5	-682.3	660.7	651.1	9.62	68.695		
2,400.0	2,387.0	2,240.5	2,111.9	5.9	13.2	-64.65	-259.7	-716.9	696.0	685.9	10.09	68.956		
2,500.0	2,486.3	2,334.1	2,197.5	6.2	13.9	-64.83	-275.0	-751.4	731.2	720.7	10.57	69.188		
2,600.0	2,585.7	2,427.6	2,283.1	6.4	14.7	-64.99	-290.2	-785.9	766.5	755.4	11.05	69.395		
2,700.0	2,685.1	2,521.2	2,368.7	6.7	15.4	-65.13	-305.4	-820.5	801.7	790.2	11.52	69.580		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-13C1 - DD - Plan #2													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	-99.8	99.8					
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-99.8	99.8	99.5	0.27	366.573		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-99.8	99.8	99.2	0.62	160.633		
300.0	300.0	295.7	295.6	0.5	0.5	-32.06	-1.2	-101.9	99.7	98.8	0.97	103.153		
329.4	329.3	323.7	323.6	0.6	0.5	-33.04	-2.1	-103.2	99.7	98.6	1.07	92.869 CC		
400.0	399.6	390.9	390.6	0.7	0.7	-36.37	-5.0	-108.0	99.9	98.6	1.33	75.029 ES		
415.1	414.6	405.2	404.8	0.8	0.7	-37.26	-5.7	-109.2	100.0	98.6	1.39	72.039		
500.0	499.0	485.5	484.5	1.0	1.0	-42.70	-11.1	-118.0	102.8	101.1	1.72	59.823		
600.0	598.4	579.3	576.8	1.2	1.3	-49.12	-19.5	-131.9	111.8	109.7	2.12	52.765		
700.0	697.7	671.6	666.9	1.5	1.7	-54.73	-30.1	-149.3	126.9	124.4	2.53	50.267 SF		
800.0	797.1	762.3	754.2	1.7	2.2	-59.16	-42.7	-170.0	147.8	144.9	2.93	50.366		
900.0	896.5	850.9	838.4	2.0	2.7	-62.44	-57.1	-193.7	173.9	170.6	3.35	51.958		
1,000.0	995.8	937.1	919.0	2.2	3.3	-64.76	-73.0	-219.9	204.9	201.1	3.76	54.428		
1,100.0	1,095.2	1,020.8	995.7	2.5	3.9	-66.36	-90.2	-248.2	240.2	236.0	4.18	57.450		
1,200.0	1,194.6	1,108.4	1,074.8	2.8	4.6	-67.55	-109.7	-280.4	279.0	274.4	4.61	60.466		
1,300.0	1,293.9	1,200.2	1,157.7	3.0	5.4	-68.49	-130.4	-314.4	318.3	313.2	5.06	62.857		
1,400.0	1,393.3	1,292.1	1,240.5	3.3	6.1	-69.22	-151.0	-348.3	357.6	352.1	5.52	64.793		
1,500.0	1,492.7	1,384.0	1,323.3	3.6	6.8	-69.81	-171.7	-382.3	396.9	390.9	5.98	66.388		
1,600.0	1,592.0	1,475.8	1,406.1	3.8	7.6	-70.29	-192.4	-416.3	436.3	429.9	6.44	67.719		
1,700.0	1,691.4	1,567.7	1,488.9	4.1	8.3	-70.70	-213.0	-450.3	475.7	468.8	6.91	68.842		
1,800.0	1,790.8	1,659.6	1,571.7	4.3	9.1	-71.04	-233.7	-484.3	515.1	507.7	7.38	69.800		
1,900.0	1,890.1	1,751.4	1,654.5	4.6	9.8	-71.33	-254.3	-518.2	554.5	546.7	7.85	70.624		
2,000.0	1,989.5	1,843.3	1,737.4	4.9	10.6	-71.58	-275.0	-552.2	594.0	585.6	8.33	71.340		
2,100.0	2,088.9	1,935.2	1,820.2	5.1	11.4	-71.81	-295.6	-586.2	633.4	624.6	8.80	71.967		
2,200.0	2,188.2	2,027.0	1,903.0	5.4	12.1	-72.00	-316.3	-620.2	672.9	663.6	9.28	72.519		
2,300.0	2,287.6	2,118.9	1,985.8	5.7	12.9	-72.18	-336.9	-654.2	712.3	702.6	9.76	73.009		
2,400.0	2,387.0	2,210.8	2,068.6	5.9	13.6	-72.33	-357.6	-688.1	751.8	741.5	10.24	73.447		
2,500.0	2,486.3	2,302.6	2,151.4	6.2	14.4	-72.47	-378.2	-722.1	791.2	780.5	10.72	73.840		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-13C2 - DD - Plan #2													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	-94.44	-8.4	-107.8	108.1					
100.0	100.0	100.0	100.0	0.1	0.1	-94.44	-8.4	-107.8	108.1	107.9	0.27	397.134		
200.0	200.0	200.0	200.0	0.3	0.3	-94.44	-8.4	-107.8	108.1	107.5	0.62	174.025		
277.8	277.8	274.3	274.2	0.5	0.4	-35.93	-9.3	-109.0	108.1	107.2	0.89	121.392 CC		
300.0	300.0	295.4	295.3	0.5	0.5	-36.50	-9.8	-109.7	108.1	107.2	0.97	111.787 ES		
400.0	399.6	390.3	390.0	0.7	0.7	-40.79	-14.1	-115.3	108.5	107.2	1.34	81.243		
415.1	414.6	404.6	404.2	0.8	0.7	-41.67	-15.0	-116.5	108.7	107.3	1.39	78.007		
500.0	499.0	484.5	483.4	1.0	1.0	-47.04	-21.2	-124.6	111.9	110.1	1.73	64.675		
600.0	598.4	577.7	575.2	1.2	1.3	-53.38	-30.9	-137.4	121.3	119.2	2.14	56.784		
700.0	697.7	669.4	664.7	1.5	1.7	-59.01	-43.2	-153.5	136.9	134.3	2.55	53.771		
800.0	797.1	759.4	751.5	1.7	2.1	-63.53	-57.7	-172.5	158.3	155.3	2.96	53.557 SF		
900.0	896.5	847.3	835.0	2.0	2.7	-66.95	-74.2	-194.2	185.0	181.6	3.37	54.959		
1,000.0	995.8	932.8	914.9	2.2	3.2	-69.44	-92.5	-218.3	216.6	212.8	3.78	57.309		
1,100.0	1,095.2	1,015.6	991.1	2.5	3.9	-71.21	-112.3	-244.2	252.6	248.4	4.19	60.233		
1,200.0	1,194.6	1,100.0	1,067.1	2.8	4.6	-72.51	-134.5	-273.4	292.8	288.1	4.62	63.398		
1,300.0	1,293.9	1,182.5	1,140.3	3.0	5.3	-73.43	-157.6	-303.6	335.7	330.7	5.05	66.541		
1,400.0	1,393.3	1,272.6	1,220.2	3.3	6.0	-74.22	-182.8	-336.7	378.9	373.4	5.49	68.971		
1,500.0	1,492.7	1,362.7	1,300.1	3.6	6.8	-74.85	-208.0	-369.8	422.1	416.2	5.95	70.984		
1,600.0	1,592.0	1,452.7	1,379.9	3.8	7.6	-75.36	-233.2	-402.9	465.4	459.0	6.40	72.667		
1,700.0	1,691.4	1,542.8	1,459.8	4.1	8.4	-75.78	-258.4	-436.0	508.7	501.8	6.87	74.090		
1,800.0	1,790.8	1,632.9	1,539.7	4.3	9.2	-76.14	-283.7	-469.1	552.0	544.7	7.33	75.305		
1,900.0	1,890.1	1,723.0	1,619.6	4.6	10.0	-76.45	-308.9	-502.2	595.3	587.5	7.80	76.352		
2,000.0	1,989.5	1,813.1	1,699.5	4.9	10.7	-76.71	-334.1	-535.3	638.7	630.4	8.27	77.262		
2,100.0	2,088.9	1,903.2	1,779.4	5.1	11.5	-76.94	-359.3	-568.4	682.0	673.3	8.74	78.059		
2,200.0	2,188.2	1,993.2	1,859.3	5.4	12.3	-77.14	-384.5	-601.5	725.4	716.2	9.21	78.761		
2,300.0	2,287.6	2,083.3	1,939.2	5.7	13.1	-77.32	-409.7	-634.6	768.8	759.1	9.68	79.385		
2,400.0	2,387.0	2,173.4	2,019.1	5.9	13.9	-77.49	-435.0	-667.7	812.1	802.0	10.16	79.942		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-14B1 - DD - Plan #2													Offset Site Error: 0.0 ft	
Survey Program: O-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	-51.0	0.0	51.0					
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-51.0	0.0	51.0	50.7	0.27	187.290		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-51.0	0.0	51.0	50.4	0.62	82.071 CC, ES		
300.0	300.0	296.8	296.7	0.5	0.5	-122.40	-54.6	-0.3	56.1	55.1	0.97	57.745		
400.0	399.6	395.3	394.9	0.7	0.7	-123.96	-61.2	-4.5	66.8	65.5	1.36	49.018		
415.1	414.6	410.1	409.6	0.8	0.7	-124.09	-62.3	-5.6	68.8	67.4	1.43	48.249		
500.0	499.0	493.9	492.8	1.0	0.9	-124.06	-69.2	-13.0	80.6	78.8	1.80	44.862		
600.0	598.4	592.9	591.0	1.2	1.2	-123.81	-77.4	-22.1	94.7	92.4	2.25	42.053		
700.0	697.7	691.9	689.3	1.5	1.5	-123.62	-85.7	-31.2	108.7	106.0	2.71	40.061		
800.0	797.1	790.9	787.5	1.7	1.7	-123.47	-93.9	-40.3	122.7	119.5	3.18	38.589		
900.0	896.5	889.9	885.8	2.0	2.0	-123.36	-102.2	-49.4	136.7	133.1	3.65	37.464		
1,000.0	995.8	989.0	984.0	2.2	2.3	-123.26	-110.4	-58.5	150.7	146.6	4.12	36.578		
1,100.0	1,095.2	1,088.0	1,082.3	2.5	2.6	-123.18	-118.7	-67.6	164.8	160.2	4.59	35.864		
1,200.0	1,194.6	1,187.0	1,180.5	2.8	2.8	-123.12	-126.9	-76.7	178.8	173.7	5.07	35.277		
1,300.0	1,293.9	1,286.0	1,278.8	3.0	3.1	-123.06	-135.1	-85.8	192.8	187.3	5.54	34.785		
1,400.0	1,393.3	1,385.0	1,377.0	3.3	3.4	-123.01	-143.4	-94.9	206.8	200.8	6.02	34.368		
1,500.0	1,492.7	1,484.0	1,475.3	3.6	3.7	-122.97	-151.6	-104.0	220.9	214.4	6.49	34.010		
1,600.0	1,592.0	1,583.0	1,573.5	3.8	3.9	-122.93	-159.9	-113.1	234.9	227.9	6.97	33.699		
1,700.0	1,691.4	1,682.0	1,671.8	4.1	4.2	-122.90	-168.1	-122.2	248.9	241.5	7.45	33.427		
1,800.0	1,790.8	1,781.0	1,770.0	4.3	4.5	-122.87	-176.4	-131.3	262.9	255.0	7.92	33.186		
1,900.0	1,890.1	1,880.1	1,868.3	4.6	4.8	-122.84	-184.6	-140.4	277.0	268.6	8.40	32.972		
2,000.0	1,989.5	1,979.1	1,966.5	4.9	5.0	-122.82	-192.9	-149.5	291.0	282.1	8.88	32.781		
2,100.0	2,088.9	2,078.1	2,064.7	5.1	5.3	-122.80	-201.1	-158.6	305.0	295.7	9.35	32.608		
2,200.0	2,188.2	2,177.1	2,163.0	5.4	5.6	-122.78	-209.4	-167.7	319.0	309.2	9.83	32.452		
2,300.0	2,287.6	2,276.1	2,261.2	5.7	5.9	-122.76	-217.6	-176.8	333.1	322.8	10.31	32.310		
2,400.0	2,387.0	2,375.1	2,359.5	5.9	6.1	-122.74	-225.8	-185.9	347.1	336.3	10.79	32.181		
2,500.0	2,486.3	2,474.1	2,457.7	6.2	6.4	-122.72	-234.1	-195.0	361.1	349.8	11.26	32.062		
2,600.0	2,585.7	2,573.1	2,556.0	6.4	6.7	-122.71	-242.3	-204.1	375.1	363.4	11.74	31.953		
2,700.0	2,685.1	2,672.2	2,654.2	6.7	7.0	-122.70	-250.6	-213.2	389.2	376.9	12.22	31.852		
2,800.0	2,784.4	2,771.2	2,752.5	7.0	7.2	-122.68	-258.8	-222.3	403.2	390.5	12.70	31.758		
2,900.0	2,883.8	2,870.2	2,850.7	7.2	7.5	-122.67	-267.1	-231.5	417.2	404.0	13.17	31.671		
3,000.0	2,983.2	2,969.2	2,949.0	7.5	7.8	-122.66	-275.3	-240.6	431.2	417.6	13.65	31.591		
3,100.0	3,082.5	3,068.2	3,047.2	7.8	8.1	-122.65	-283.6	-249.7	445.3	431.1	14.13	31.515		
3,200.0	3,181.9	3,167.2	3,145.5	8.0	8.3	-122.64	-291.8	-258.8	459.3	444.7	14.61	31.445		
3,300.0	3,281.3	3,266.2	3,243.7	8.3	8.6	-122.63	-300.1	-267.9	473.3	458.2	15.08	31.379		
3,400.0	3,380.6	3,365.2	3,342.0	8.5	8.9	-122.63	-308.3	-277.0	487.3	471.8	15.56	31.316		
3,500.0	3,480.0	3,464.2	3,440.2	8.8	9.2	-122.62	-316.6	-286.1	501.4	485.3	16.04	31.258		
3,600.0	3,579.4	3,563.3	3,538.5	9.1	9.4	-122.61	-324.8	-295.2	515.4	498.9	16.52	31.203		
3,700.0	3,678.7	3,662.3	3,636.7	9.3	9.7	-122.60	-333.0	-304.3	529.4	512.4	16.99	31.151		
3,800.0	3,778.1	3,761.3	3,734.9	9.6	10.0	-122.60	-341.3	-313.4	543.4	526.0	17.47	31.101		
3,900.0	3,877.5	3,860.3	3,833.2	9.9	10.3	-122.59	-349.5	-322.5	557.5	539.5	17.95	31.055		
4,000.0	3,976.8	3,959.3	3,931.4	10.1	10.5	-122.58	-357.8	-331.6	571.5	553.1	18.43	31.011		
4,100.0	4,076.2	4,058.3	4,029.7	10.4	10.8	-122.58	-366.0	-340.7	585.5	566.6	18.91	30.968		
4,200.0	4,175.6	4,157.3	4,127.9	10.7	11.1	-122.57	-374.3	-349.8	599.5	580.1	19.38	30.928		
4,300.0	4,274.9	4,256.3	4,226.2	10.9	11.4	-122.57	-382.5	-358.9	613.6	593.7	19.86	30.890		
4,400.0	4,374.3	4,355.4	4,324.4	11.2	11.6	-122.56	-390.8	-368.0	627.6	607.2	20.34	30.854		
4,500.0	4,473.7	4,454.4	4,422.7	11.4	11.9	-122.56	-399.0	-377.1	641.6	620.8	20.82	30.819		
4,600.0	4,573.0	4,553.4	4,520.9	11.7	12.2	-122.55	-407.3	-386.2	655.6	634.3	21.30	30.786		
4,700.0	4,672.4	4,652.4	4,619.2	12.0	12.5	-122.55	-415.5	-395.3	669.7	647.9	21.77	30.755		
4,800.0	4,771.8	4,751.4	4,717.4	12.2	12.7	-122.54	-423.7	-404.4	683.7	661.4	22.25	30.724		
4,900.0	4,871.1	4,850.4	4,815.7	12.5	13.0	-122.54	-432.0	-413.5	697.7	675.0	22.73	30.695		
5,000.0	4,970.5	4,949.4	4,913.9	12.8	13.3	-122.54	-440.2	-422.6	711.7	688.5	23.21	30.667		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													K28NW Pad - Benjamin Federal 28-14B1 - DD - Plan #2		Offset Site Error:		0.0 ft
Survey Program: 0-MWD															Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance										
Measured Depth	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Total	Separation	Warning				
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Uncertainty	Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	Axis						
5,100.0	5,069.9	5,048.4	5,012.2	13.0	13.6	-122.53	-448.5	-431.7	725.8	702.1	23.69	30.640					
5,200.0	5,169.2	5,147.4	5,110.4	13.3	13.9	-122.53	-456.7	-440.8	739.8	715.6	24.16	30.615					
5,300.0	5,268.6	5,246.5	5,208.6	13.5	14.1	-122.52	-465.0	-449.9	753.8	729.2	24.64	30.590					
5,400.0	5,368.0	5,345.5	5,306.9	13.8	14.4	-122.52	-473.2	-459.0	767.8	742.7	25.12	30.566					
5,500.0	5,467.3	5,444.5	5,405.1	14.1	14.7	-122.52	-481.5	-468.1	781.9	756.3	25.60	30.543					
5,600.0	5,566.7	5,543.5	5,503.4	14.3	15.0	-122.51	-489.7	-477.2	795.9	769.8	26.08	30.521					
5,700.0	5,666.1	5,642.5	5,601.6	14.6	15.2	-122.51	-498.0	-486.3	809.9	783.3	26.55	30.500					
5,800.0	5,765.4	5,741.5	5,699.9	14.9	15.5	-122.51	-506.2	-495.4	823.9	796.9	27.03	30.479 SF					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-14B2 - DD - Plan #2													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	-111.40	-42.3	-107.8	115.8					
100.0	100.0	100.0	100.0	0.1	0.1	-111.40	-42.3	-107.8	115.8	115.5	0.27	425.265		
200.0	200.0	200.0	200.0	0.3	0.3	-111.40	-42.3	-107.8	115.8	115.2	0.62	186.352 CC		
300.0	300.0	295.5	295.5	0.5	0.5	-53.77	-44.4	-108.9	116.1	115.1	0.97	119.518 ES		
400.0	399.6	390.3	390.0	0.7	0.7	-58.86	-50.7	-112.1	117.7	116.4	1.36	86.581		
415.1	414.6	404.5	404.1	0.8	0.7	-59.89	-52.0	-112.7	118.2	116.8	1.42	83.173		
500.0	499.0	483.8	482.7	1.0	1.0	-66.10	-61.0	-117.3	123.3	121.5	1.78	69.278		
600.0	598.4	580.0	577.7	1.2	1.2	-73.40	-74.8	-124.3	134.3	132.1	2.21	60.847		
700.0	697.7	678.0	674.4	1.5	1.6	-79.67	-89.1	-131.5	147.4	144.8	2.63	56.017		
800.0	797.1	775.9	771.0	1.7	1.9	-84.89	-103.3	-138.7	162.0	159.0	3.05	53.080		
900.0	896.5	873.8	867.6	2.0	2.2	-89.23	-117.5	-145.9	177.8	174.3	3.47	51.180		
1,000.0	995.8	971.7	964.2	2.2	2.5	-92.85	-131.7	-153.1	194.4	190.5	3.90	49.878		
1,100.0	1,095.2	1,069.6	1,060.8	2.5	2.8	-95.90	-146.0	-160.3	211.6	207.3	4.32	48.940		
1,200.0	1,194.6	1,167.6	1,157.4	2.8	3.2	-98.50	-160.2	-167.5	229.4	224.6	4.75	48.236		
1,300.0	1,293.9	1,265.5	1,254.0	3.0	3.5	-100.71	-174.4	-174.7	247.5	242.3	5.19	47.689		
1,400.0	1,393.3	1,363.4	1,350.6	3.3	3.8	-102.63	-188.6	-181.9	265.9	260.3	5.63	47.252		
1,500.0	1,492.7	1,461.3	1,447.3	3.6	4.1	-104.30	-202.9	-189.1	284.6	278.5	6.07	46.896		
1,600.0	1,592.0	1,559.2	1,543.9	3.8	4.5	-105.76	-217.1	-196.3	303.5	297.0	6.51	46.600		
1,700.0	1,691.4	1,657.1	1,640.5	4.1	4.8	-107.05	-231.3	-203.5	322.6	315.6	6.96	46.351		
1,800.0	1,790.8	1,755.1	1,737.1	4.3	5.1	-108.20	-245.6	-210.7	341.8	334.4	7.41	46.138		
1,900.0	1,890.1	1,853.0	1,833.7	4.6	5.4	-109.22	-259.8	-217.9	361.1	353.3	7.86	45.956		
2,000.0	1,989.5	1,950.9	1,930.3	4.9	5.8	-110.14	-274.0	-225.1	380.5	372.2	8.31	45.797		
2,100.0	2,088.9	2,048.8	2,026.9	5.1	6.1	-110.97	-288.2	-232.3	400.1	391.3	8.76	45.658		
2,200.0	2,188.2	2,146.7	2,123.5	5.4	6.4	-111.73	-302.5	-239.5	419.6	410.4	9.22	45.536		
2,300.0	2,287.6	2,244.7	2,220.2	5.7	6.7	-112.41	-316.7	-246.7	439.3	429.6	9.67	45.428		
2,400.0	2,387.0	2,342.6	2,316.8	5.9	7.1	-113.04	-330.9	-253.9	459.0	448.9	10.13	45.331		
2,500.0	2,486.3	2,440.5	2,413.4	6.2	7.4	-113.62	-345.1	-261.1	478.8	468.2	10.58	45.245		
2,600.0	2,585.7	2,538.4	2,510.0	6.4	7.7	-114.15	-359.4	-268.3	498.6	487.5	11.04	45.167		
2,700.0	2,685.1	2,636.3	2,606.6	6.7	8.1	-114.64	-373.6	-275.5	518.4	506.9	11.50	45.097		
2,800.0	2,784.4	2,734.3	2,703.2	7.0	8.4	-115.10	-387.8	-282.7	538.3	526.3	11.95	45.034		
2,900.0	2,883.8	2,832.2	2,799.8	7.2	8.7	-115.52	-402.1	-289.9	558.2	545.8	12.41	44.976		
3,000.0	2,983.2	2,930.1	2,896.4	7.5	9.0	-115.91	-416.3	-297.1	578.1	565.2	12.87	44.923		
3,100.0	3,082.5	3,028.0	2,993.1	7.8	9.4	-116.28	-430.5	-304.3	598.0	584.7	13.33	44.875		
3,200.0	3,181.9	3,125.9	3,089.7	8.0	9.7	-116.62	-444.7	-311.5	618.0	604.2	13.79	44.830		
3,300.0	3,281.3	3,223.9	3,186.3	8.3	10.0	-116.94	-459.0	-318.7	638.0	623.8	14.24	44.789		
3,400.0	3,380.6	3,321.8	3,282.9	8.5	10.3	-117.24	-473.2	-325.9	658.0	643.3	14.70	44.752		
3,500.0	3,480.0	3,419.7	3,379.5	8.8	10.7	-117.53	-487.4	-333.1	678.1	662.9	15.16	44.717		
3,600.0	3,579.4	3,517.6	3,476.1	9.1	11.0	-117.80	-501.6	-340.3	698.1	682.5	15.62	44.684		
3,700.0	3,678.7	3,615.5	3,572.7	9.3	11.3	-118.05	-515.9	-347.5	718.2	702.1	16.08	44.654		
3,800.0	3,778.1	3,713.5	3,669.4	9.6	11.6	-118.29	-530.1	-354.7	738.2	721.7	16.54	44.626		
3,900.0	3,877.5	3,811.4	3,766.0	9.9	12.0	-118.52	-544.3	-361.9	758.3	741.3	17.00	44.600		
4,000.0	3,976.8	3,909.3	3,862.6	10.1	12.3	-118.73	-558.6	-369.1	778.4	760.9	17.46	44.575		
4,100.0	4,076.2	4,007.2	3,959.2	10.4	12.6	-118.93	-572.8	-376.3	798.5	780.6	17.92	44.552		
4,200.0	4,175.6	4,105.1	4,055.8	10.7	13.0	-119.13	-587.0	-383.5	818.6	800.2	18.38	44.531 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-14C - DD - Plan #2													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	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Total	Separation		
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-108.75	-33.9	-99.8	105.4					
100.0	100.0	100.0	100.0	0.1	0.1	-108.75	-33.9	-99.8	105.4	105.1	0.27	387.111		
200.0	200.0	200.0	200.0	0.3	0.3	-108.75	-33.9	-99.8	105.4	104.8	0.62	169.633		
291.1	291.0	287.9	287.9	0.5	0.5	-51.08	-35.8	-100.5	105.3	104.4	0.94	111.769 CC		
300.0	300.0	296.5	296.5	0.5	0.5	-51.44	-36.2	-100.6	105.4	104.4	0.97	108.160 ES		
400.0	399.6	392.1	391.8	0.7	0.7	-57.54	-42.9	-103.1	106.1	104.7	1.37	77.487		
415.1	414.6	406.4	406.0	0.8	0.7	-58.77	-44.3	-103.6	106.4	104.9	1.43	74.280		
500.0	499.0	486.3	485.2	1.0	1.0	-66.30	-54.0	-107.2	110.7	108.9	1.80	61.509		
600.0	598.4	578.8	576.4	1.2	1.3	-75.05	-69.1	-112.7	122.3	120.1	2.24	54.718		
700.0	697.7	673.3	668.7	1.5	1.6	-82.83	-87.9	-119.5	140.3	137.6	2.66	52.824		
800.0	797.1	769.9	763.0	1.7	2.0	-88.98	-107.5	-126.7	160.7	157.6	3.06	52.421 SF		
900.0	896.5	866.4	857.3	2.0	2.4	-93.74	-127.0	-133.8	182.5	179.0	3.47	52.587		
1,000.0	995.8	963.0	951.6	2.2	2.8	-97.48	-146.6	-141.0	205.2	201.4	3.88	52.938		
1,100.0	1,095.2	1,059.6	1,045.9	2.5	3.2	-100.47	-166.2	-148.1	228.7	224.4	4.29	53.319		
1,200.0	1,194.6	1,156.2	1,140.2	2.8	3.6	-102.91	-185.8	-155.3	252.6	247.9	4.71	53.672		
1,300.0	1,293.9	1,252.8	1,234.5	3.0	4.0	-104.93	-205.3	-162.4	276.9	271.8	5.13	53.977		
1,400.0	1,393.3	1,349.4	1,328.8	3.3	4.4	-106.62	-224.9	-169.6	301.4	295.9	5.56	54.237		
1,500.0	1,492.7	1,445.9	1,423.1	3.6	4.8	-108.06	-244.5	-176.7	326.2	320.2	5.99	54.454		
1,600.0	1,592.0	1,542.5	1,517.4	3.8	5.2	-109.29	-264.1	-183.9	351.2	344.7	6.43	54.637		
1,700.0	1,691.4	1,639.1	1,611.7	4.1	5.6	-110.37	-283.6	-191.0	376.2	369.4	6.87	54.790		
1,800.0	1,790.8	1,735.7	1,706.0	4.3	6.0	-111.30	-303.2	-198.2	401.4	394.1	7.31	54.920		
1,900.0	1,890.1	1,832.3	1,800.3	4.6	6.4	-112.13	-322.8	-205.3	426.7	418.9	7.75	55.031		
2,000.0	1,989.5	1,928.8	1,894.6	4.9	6.8	-112.87	-342.4	-212.5	452.0	443.8	8.20	55.126		
2,100.0	2,088.9	2,025.4	1,988.9	5.1	7.2	-113.52	-362.0	-219.6	477.4	468.8	8.65	55.208		
2,200.0	2,188.2	2,122.0	2,083.2	5.4	7.6	-114.12	-381.5	-226.8	502.9	493.8	9.10	55.279		
2,300.0	2,287.6	2,218.6	2,177.5	5.7	8.0	-114.65	-401.1	-233.9	528.4	518.8	9.55	55.341		
2,400.0	2,387.0	2,315.2	2,271.9	5.9	8.4	-115.13	-420.7	-241.1	553.9	543.9	10.00	55.396		
2,500.0	2,486.3	2,411.7	2,366.2	6.2	8.8	-115.58	-440.3	-248.2	579.5	569.0	10.45	55.445		
2,600.0	2,585.7	2,508.3	2,460.5	6.4	9.2	-115.98	-459.8	-255.4	605.1	594.2	10.90	55.489		
2,700.0	2,685.1	2,604.9	2,554.8	6.7	9.6	-116.35	-479.4	-262.5	630.7	619.4	11.36	55.528		
2,800.0	2,784.4	2,701.5	2,649.1	7.0	10.0	-116.70	-499.0	-269.7	656.4	644.6	11.81	55.563		
2,900.0	2,883.8	2,798.1	2,743.4	7.2	10.4	-117.01	-518.6	-276.8	682.1	669.8	12.27	55.595		
3,000.0	2,983.2	2,894.7	2,837.7	7.5	10.8	-117.31	-538.1	-284.0	707.8	695.0	12.72	55.624		
3,100.0	3,082.5	2,991.2	2,932.0	7.8	11.2	-117.58	-557.7	-291.1	733.5	720.3	13.18	55.650		
3,200.0	3,181.9	3,087.8	3,026.3	8.0	11.6	-117.84	-577.3	-298.3	759.2	745.5	13.64	55.674		
3,300.0	3,281.3	3,184.4	3,120.6	8.3	12.0	-118.08	-596.9	-305.4	784.9	770.8	14.09	55.696		
3,400.0	3,380.6	3,281.0	3,214.9	8.5	12.4	-118.30	-616.4	-312.6	810.7	796.1	14.55	55.717		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 28-16C - DD - Plan #2												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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	169.04	-42.3	8.2	43.0				
100.0	100.0	100.0	100.0	0.1	0.1	169.04	-42.3	8.2	43.0	42.8	0.27	158.067	
200.0	200.0	200.0	200.0	0.3	0.3	169.04	-42.3	8.2	43.0	42.4	0.62	69.265	CC, ES
300.0	300.0	298.0	297.9	0.5	0.5	-135.66	-44.0	10.0	47.0	46.0	0.97	48.270	
400.0	399.6	394.4	394.0	0.7	0.7	-144.39	-49.0	15.4	59.8	58.5	1.33	44.807	SF
415.1	414.6	408.7	408.3	0.8	0.7	-145.73	-50.0	16.6	62.6	61.2	1.39	45.087	
500.0	499.0	488.3	487.2	1.0	1.0	-152.19	-57.0	24.1	81.2	79.5	1.68	48.212	
600.0	598.4	579.8	577.3	1.2	1.3	-157.18	-67.8	35.8	108.2	106.2	2.02	53.514	
700.0	697.7	668.6	663.9	1.5	1.7	-160.39	-81.0	50.2	140.1	137.8	2.35	59.637	
800.0	797.1	754.5	746.7	1.7	2.1	-162.52	-96.5	66.9	176.6	174.0	2.67	66.142	
900.0	896.5	837.2	825.4	2.0	2.6	-163.98	-113.7	85.6	217.4	214.4	2.98	72.842	
1,000.0	995.8	920.2	903.4	2.2	3.1	-165.04	-133.1	106.6	261.8	258.5	3.30	79.417	
1,100.0	1,095.2	1,009.3	986.7	2.5	3.7	-165.87	-154.5	129.8	307.1	303.5	3.62	84.870	
1,200.0	1,194.6	1,098.3	1,070.0	2.8	4.3	-166.48	-175.8	152.9	352.5	348.5	3.94	89.424	
1,300.0	1,293.9	1,187.4	1,153.3	3.0	4.8	-166.95	-197.2	176.1	397.9	393.6	4.27	93.276	
1,400.0	1,393.3	1,276.5	1,236.6	3.3	5.4	-167.33	-218.5	199.2	443.3	438.7	4.59	96.585	
1,500.0	1,492.7	1,365.5	1,319.9	3.6	6.0	-167.64	-239.9	222.3	488.7	483.8	4.91	99.457	
1,600.0	1,592.0	1,454.6	1,403.2	3.8	6.6	-167.89	-261.2	245.5	534.1	528.9	5.24	101.972	
1,700.0	1,691.4	1,543.7	1,486.6	4.1	7.2	-168.11	-282.6	268.6	579.5	574.0	5.56	104.191	
1,800.0	1,790.8	1,632.7	1,569.9	4.3	7.8	-168.29	-303.9	291.8	625.0	619.1	5.89	106.163	
1,900.0	1,890.1	1,721.8	1,653.2	4.6	8.3	-168.45	-325.3	314.9	670.4	664.2	6.21	107.927	
2,000.0	1,989.5	1,810.9	1,736.5	4.9	8.9	-168.59	-346.6	338.0	715.8	709.3	6.54	109.514	
2,100.0	2,088.9	1,899.9	1,819.8	5.1	9.5	-168.71	-368.0	361.2	761.3	754.4	6.86	110.949	
2,200.0	2,188.2	1,989.0	1,903.1	5.4	10.1	-168.82	-389.3	384.3	806.7	799.5	7.19	112.252	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 33-3B - DD - Plan #2													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	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Total	Separation		
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Centres (ft)	Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-117.06	-51.0	-99.8	112.1					
100.0	100.0	100.0	100.0	0.1	0.1	-117.06	-51.0	-99.8	112.1	111.8	0.27	411.647		
200.0	200.0	200.0	200.0	0.3	0.3	-117.06	-51.0	-99.8	112.1	111.5	0.62	180.385		
300.0	300.0	298.1	298.1	0.5	0.5	-59.58	-52.7	-99.8	111.5	110.5	0.98	114.244		
400.0	399.6	395.5	395.3	0.7	0.7	-65.27	-57.7	-99.8	110.6	109.2	1.37	80.560		
415.1	414.6	410.0	409.9	0.8	0.7	-66.45	-58.7	-99.8	110.5	109.1	1.44	76.973		
419.2	418.8	414.1	413.9	0.8	0.7	-66.79	-59.0	-99.8	110.5	109.1	1.45	76.024	CC, ES	
500.0	499.0	490.7	490.2	1.0	0.9	-73.61	-65.8	-99.9	112.3	110.4	1.80	62.272		
600.0	598.4	583.4	582.1	1.2	1.1	-82.15	-77.9	-101.3	120.6	118.4	2.24	53.785		
700.0	697.7	674.6	671.8	1.5	1.5	-89.79	-93.9	-104.0	136.3	133.6	2.67	51.102	SF	
800.0	797.1	763.8	758.7	1.7	1.8	-95.90	-113.4	-108.0	158.6	155.6	3.07	51.723		
900.0	896.5	850.7	842.5	2.0	2.3	-100.47	-136.1	-113.1	186.9	183.5	3.45	54.180		
1,000.0	995.8	935.7	923.2	2.2	2.7	-103.78	-161.8	-119.3	220.4	216.6	3.82	57.632		
1,100.0	1,095.2	1,027.8	1,010.1	2.5	3.3	-106.41	-191.5	-126.7	256.6	252.3	4.21	60.903		
1,200.0	1,194.6	1,120.5	1,097.6	2.8	3.8	-108.41	-221.3	-134.0	293.1	288.4	4.61	63.624		
1,300.0	1,293.9	1,213.1	1,185.0	3.0	4.4	-109.97	-251.1	-141.4	329.8	324.8	5.01	65.881		
1,400.0	1,393.3	1,305.8	1,272.4	3.3	4.9	-111.22	-281.0	-148.8	366.7	361.3	5.41	67.758		
1,500.0	1,492.7	1,398.5	1,359.8	3.6	5.5	-112.24	-310.8	-156.2	403.7	397.9	5.82	69.327		
1,600.0	1,592.0	1,491.1	1,447.2	3.8	6.0	-113.09	-340.7	-163.6	440.9	434.6	6.24	70.647		
1,700.0	1,691.4	1,583.8	1,534.7	4.1	6.6	-113.81	-370.5	-171.0	478.1	471.4	6.66	71.767		
1,800.0	1,790.8	1,676.5	1,622.1	4.3	7.1	-114.42	-400.3	-178.4	515.3	508.3	7.09	72.724		
1,900.0	1,890.1	1,769.1	1,709.5	4.6	7.7	-114.95	-430.2	-185.8	552.6	545.1	7.51	73.549		
2,000.0	1,989.5	1,861.8	1,796.9	4.9	8.3	-115.42	-460.0	-193.2	590.0	582.0	7.94	74.264		
2,100.0	2,088.9	1,954.5	1,884.3	5.1	8.8	-115.83	-489.9	-200.6	627.3	619.0	8.38	74.889		
2,200.0	2,188.2	2,047.2	1,971.8	5.4	9.4	-116.19	-519.7	-208.0	664.7	655.9	8.81	75.438		
2,300.0	2,287.6	2,139.8	2,059.2	5.7	9.9	-116.52	-549.5	-215.4	702.1	692.9	9.25	75.924		
2,400.0	2,387.0	2,232.5	2,146.6	5.9	10.5	-116.81	-579.4	-222.8	739.6	729.9	9.69	76.356		
2,500.0	2,486.3	2,325.2	2,234.0	6.2	11.0	-117.07	-609.2	-230.2	777.0	766.9	10.13	76.742		
2,600.0	2,585.7	2,417.8	2,321.5	6.4	11.6	-117.31	-639.1	-237.6	814.5	803.9	10.57	77.089		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Federal 33-4B - DD - Plan #2													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	-103.31	-25.5	-107.8	110.8					
100.0	100.0	100.0	100.0	0.1	0.1	-103.31	-25.5	-107.8	110.8	110.5	0.27	406.864		
200.0	200.0	200.0	200.0	0.3	0.3	-103.31	-25.5	-107.8	110.8	110.2	0.62	178.289 CC		
300.0	300.0	295.1	295.1	0.5	0.5	-45.40	-27.1	-109.5	111.1	110.1	0.97	114.810 ES		
400.0	399.6	389.7	389.4	0.7	0.7	-49.73	-31.9	-114.7	112.5	111.2	1.34	83.905		
415.1	414.6	403.9	403.5	0.8	0.7	-50.61	-32.9	-115.8	112.9	111.5	1.40	80.681		
500.0	499.0	483.4	482.4	1.0	1.0	-55.88	-39.7	-123.3	117.5	115.7	1.74	67.471		
600.0	598.4	576.1	573.6	1.2	1.3	-61.86	-50.5	-135.0	128.5	126.3	2.15	59.729		
700.0	697.7	667.3	662.6	1.5	1.7	-67.00	-64.0	-149.7	145.6	143.0	2.56	56.776		
800.0	797.1	756.6	748.8	1.7	2.1	-71.06	-80.0	-167.1	168.3	165.3	2.98	56.529 SF		
900.0	896.5	843.8	831.7	2.0	2.6	-74.09	-98.2	-186.9	196.1	192.7	3.39	57.838		
1,000.0	995.8	928.6	911.0	2.2	3.2	-76.27	-118.4	-208.9	228.7	224.9	3.81	60.066		
1,100.0	1,095.2	1,010.7	986.6	2.5	3.8	-77.81	-140.2	-232.6	265.6	261.4	4.23	62.857		
1,200.0	1,194.6	1,090.0	1,058.1	2.8	4.5	-78.88	-163.3	-257.7	306.5	301.9	4.65	65.983		
1,300.0	1,293.9	1,166.4	1,125.7	3.0	5.2	-79.62	-187.5	-284.0	351.2	346.1	5.07	69.319		
1,400.0	1,393.3	1,247.8	1,196.3	3.3	5.9	-80.17	-214.9	-313.8	398.8	393.3	5.50	72.532		
1,500.0	1,492.7	1,335.5	1,272.2	3.6	6.7	-80.63	-244.5	-346.1	446.8	440.9	5.95	75.124		
1,600.0	1,592.0	1,423.1	1,348.1	3.8	7.5	-81.01	-274.2	-378.3	494.9	488.5	6.40	77.308		
1,700.0	1,691.4	1,510.8	1,424.0	4.1	8.4	-81.31	-303.9	-410.6	542.9	536.1	6.86	79.167		
1,800.0	1,790.8	1,598.5	1,499.9	4.3	9.2	-81.57	-333.6	-442.9	591.0	583.7	7.32	80.766		
1,900.0	1,890.1	1,686.1	1,575.8	4.6	10.0	-81.79	-363.3	-475.2	639.1	631.3	7.78	82.150		
2,000.0	1,989.5	1,773.8	1,651.7	4.9	10.8	-81.98	-393.0	-507.5	687.2	678.9	8.24	83.363		
2,100.0	2,088.9	1,861.4	1,727.6	5.1	11.7	-82.14	-422.6	-539.8	735.2	726.5	8.71	84.432		
2,200.0	2,188.2	1,949.1	1,803.5	5.4	12.5	-82.29	-452.3	-572.0	783.3	774.2	9.17	85.382		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Fee 28-10D2 - DD - Plan #2													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	135.67	-8.4	8.2	11.7					
100.0	100.0	100.0	100.0	0.1	0.1	135.67	-8.4	8.2	11.7	11.4	0.27	43.014		
200.0	200.0	200.0	200.0	0.3	0.3	135.67	-8.4	8.2	11.7	11.1	0.62	18.849 CC, ES		
300.0	300.0	299.3	299.3	0.5	0.5	-174.20	-8.3	10.8	16.2	15.2	0.97	16.652 SF		
400.0	399.6	397.2	396.9	0.7	0.7	175.15	-7.9	18.3	30.5	29.2	1.32	23.068		
415.1	414.6	411.8	411.3	0.8	0.7	174.09	-7.8	19.9	33.6	32.2	1.38	24.381		
500.0	499.0	492.7	491.5	1.0	1.0	169.66	-7.4	30.5	53.0	51.3	1.68	31.585		
600.0	598.4	586.6	584.0	1.2	1.3	166.26	-6.6	47.0	80.2	78.1	2.04	39.361		
700.0	697.7	682.4	678.0	1.5	1.6	164.29	-5.8	65.2	108.8	106.4	2.40	45.349		
800.0	797.1	778.2	772.1	1.7	2.0	163.15	-5.0	83.4	137.4	134.7	2.76	49.779		
900.0	896.5	873.9	866.1	2.0	2.3	162.40	-4.2	101.6	166.2	163.0	3.12	53.183		
1,000.0	995.8	969.7	960.1	2.2	2.7	161.87	-3.3	119.7	194.9	191.4	3.49	55.878		
1,100.0	1,095.2	1,065.5	1,054.2	2.5	3.1	161.47	-2.5	137.9	223.6	219.8	3.85	58.063		
1,200.0	1,194.6	1,161.3	1,148.2	2.8	3.4	161.17	-1.7	156.1	252.4	248.2	4.22	59.871		
1,300.0	1,293.9	1,257.0	1,242.2	3.0	3.8	160.93	-0.9	174.2	281.1	276.5	4.58	61.390		
1,400.0	1,393.3	1,352.8	1,336.2	3.3	4.1	160.73	-0.1	192.4	309.9	304.9	4.94	62.685		
1,500.0	1,492.7	1,448.6	1,430.3	3.6	4.5	160.57	0.8	210.6	338.6	333.3	5.31	63.802		
1,600.0	1,592.0	1,544.3	1,524.3	3.8	4.9	160.43	1.6	228.8	367.4	361.7	5.67	64.775		
1,700.0	1,691.4	1,640.1	1,618.3	4.1	5.2	160.31	2.4	246.9	396.2	390.1	6.04	65.630		
1,800.0	1,790.8	1,735.9	1,712.3	4.3	5.6	160.21	3.2	265.1	424.9	418.5	6.40	66.388		
1,900.0	1,890.1	1,831.7	1,806.4	4.6	6.0	160.12	4.0	283.3	453.7	446.9	6.77	67.063		
2,000.0	1,989.5	1,927.4	1,900.4	4.9	6.3	160.04	4.9	301.5	482.5	475.3	7.13	67.670		
2,100.0	2,088.9	2,023.2	1,994.4	5.1	6.7	159.97	5.7	319.6	511.2	503.7	7.49	68.217		
2,200.0	2,188.2	2,119.0	2,088.5	5.4	7.0	159.91	6.5	337.8	540.0	532.1	7.86	68.714		
2,300.0	2,287.6	2,214.7	2,182.5	5.7	7.4	159.85	7.3	356.0	568.8	560.6	8.22	69.166		
2,400.0	2,387.0	2,310.5	2,276.5	5.9	7.8	159.80	8.2	374.2	597.5	589.0	8.59	69.580		
2,500.0	2,486.3	2,406.3	2,370.5	6.2	8.1	159.76	9.0	392.3	626.3	617.4	8.95	69.960		
2,600.0	2,585.7	2,502.1	2,464.6	6.4	8.5	159.72	9.8	410.5	655.1	645.8	9.32	70.310		
2,700.0	2,685.1	2,597.8	2,558.6	6.7	8.9	159.68	10.6	428.7	683.9	674.2	9.68	70.634		
2,800.0	2,784.4	2,693.6	2,652.6	7.0	9.2	159.64	11.4	446.9	712.6	702.6	10.05	70.934		
2,900.0	2,883.8	2,789.4	2,746.6	7.2	9.6	159.61	12.3	465.0	741.4	731.0	10.41	71.213		
3,000.0	2,983.2	2,885.1	2,840.7	7.5	9.9	159.58	13.1	483.2	770.2	759.4	10.78	71.473		
3,100.0	3,082.5	2,980.9	2,934.7	7.8	10.3	159.55	13.9	501.4	798.9	787.8	11.14	71.716		
3,200.0	3,181.9	3,076.7	3,028.7	8.0	10.7	159.53	14.7	519.6	827.7	816.2	11.50	71.944		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Fee 28-11B - DD - Plan #2													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	0.00	17.1	0.0	17.1					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	17.1	0.0	17.1	16.8	0.27	62.876		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	17.1	0.0	17.1	16.5	0.62	27.552 CC, ES		
300.0	300.0	299.3	299.3	0.5	0.5	61.06	19.1	-1.7	17.7	16.8	0.98	18.107		
400.0	399.6	398.6	398.3	0.7	0.7	65.43	24.8	-6.8	19.7	18.3	1.39	14.130		
415.1	414.6	413.6	413.1	0.8	0.8	66.23	26.0	-7.9	20.1	18.6	1.46	13.738		
500.0	499.0	497.9	496.7	1.0	1.0	66.85	34.4	-15.4	23.8	21.9	1.86	12.754		
600.0	598.4	597.7	595.4	1.2	1.3	64.85	45.6	-25.3	29.2	26.9	2.34	12.488		
700.0	697.7	697.6	694.1	1.5	1.6	63.48	56.8	-35.2	34.7	31.8	2.82	12.308		
800.0	797.1	797.4	792.8	1.7	1.9	62.48	68.0	-45.2	40.1	36.8	3.29	12.180		
900.0	896.5	897.3	891.6	2.0	2.2	61.73	79.2	-55.1	45.6	41.8	3.77	12.086		
1,000.0	995.8	997.1	990.3	2.2	2.5	61.13	90.4	-65.0	51.1	46.9	4.25	12.015		
1,100.0	1,095.2	1,097.0	1,089.0	2.5	2.8	60.65	101.6	-74.9	56.6	51.9	4.73	11.959		
1,200.0	1,194.6	1,196.8	1,187.7	2.8	3.1	60.26	112.8	-84.9	62.1	56.9	5.21	11.914		
1,300.0	1,293.9	1,296.7	1,286.4	3.0	3.4	59.93	124.0	-94.8	67.6	61.9	5.69	11.877		
1,400.0	1,393.3	1,396.5	1,385.2	3.3	3.8	59.65	135.2	-104.7	73.1	66.9	6.17	11.846		
1,500.0	1,492.7	1,496.4	1,483.9	3.6	4.1	59.41	146.4	-114.7	78.6	72.0	6.65	11.821		
1,600.0	1,592.0	1,596.2	1,582.6	3.8	4.4	59.20	157.6	-124.6	84.1	77.0	7.13	11.799		
1,700.0	1,691.4	1,696.1	1,681.3	4.1	4.7	59.01	168.7	-134.5	89.6	82.0	7.61	11.780		
1,800.0	1,790.8	1,795.9	1,780.0	4.3	5.0	58.85	179.9	-144.5	95.1	87.0	8.09	11.763		
1,900.0	1,890.1	1,895.8	1,878.8	4.6	5.3	58.70	191.1	-154.4	100.6	92.1	8.57	11.748		
2,000.0	1,989.5	1,995.6	1,977.5	4.9	5.6	58.57	202.3	-164.3	106.1	97.1	9.04	11.736		
2,100.0	2,088.9	2,095.4	2,076.2	5.1	6.0	58.46	213.5	-174.2	111.6	102.1	9.52	11.724		
2,200.0	2,188.2	2,195.3	2,174.9	5.4	6.3	58.35	224.7	-184.2	117.2	107.2	10.00	11.714		
2,300.0	2,287.6	2,295.1	2,273.6	5.7	6.6	58.26	235.9	-194.1	122.7	112.2	10.48	11.704		
2,400.0	2,387.0	2,395.0	2,372.4	5.9	6.9	58.17	247.1	-204.0	128.2	117.2	10.96	11.696		
2,500.0	2,486.3	2,494.8	2,471.1	6.2	7.2	58.09	258.3	-214.0	133.7	122.3	11.44	11.688		
2,600.0	2,585.7	2,594.7	2,569.8	6.4	7.5	58.01	269.5	-223.9	139.2	127.3	11.92	11.681		
2,700.0	2,685.1	2,694.5	2,668.5	6.7	7.8	57.94	280.7	-233.8	144.7	132.3	12.39	11.675		
2,800.0	2,784.4	2,794.4	2,767.3	7.0	8.2	57.88	291.9	-243.8	150.2	137.3	12.87	11.669		
2,900.0	2,883.8	2,894.2	2,866.0	7.2	8.5	57.82	303.0	-253.7	155.7	142.4	13.35	11.663		
3,000.0	2,983.2	2,994.1	2,964.7	7.5	8.8	57.76	314.2	-263.6	161.2	147.4	13.83	11.658		
3,100.0	3,082.5	3,093.9	3,063.4	7.8	9.1	57.71	325.4	-273.6	166.8	152.4	14.31	11.654		
3,200.0	3,181.9	3,193.8	3,162.1	8.0	9.4	57.66	336.6	-283.5	172.3	157.5	14.79	11.649		
3,300.0	3,281.3	3,293.6	3,260.9	8.3	9.7	57.62	347.8	-293.4	177.8	162.5	15.27	11.645		
3,400.0	3,380.6	3,393.5	3,359.6	8.5	10.0	57.58	359.0	-303.3	183.3	167.5	15.74	11.641		
3,500.0	3,480.0	3,493.3	3,458.3	8.8	10.4	57.54	370.2	-313.3	188.8	172.6	16.22	11.638		
3,600.0	3,579.4	3,593.2	3,557.0	9.1	10.7	57.50	381.4	-323.2	194.3	177.6	16.70	11.634		
3,700.0	3,678.7	3,693.0	3,655.7	9.3	11.0	57.46	392.6	-333.1	199.8	182.6	17.18	11.631		
3,800.0	3,778.1	3,792.9	3,754.5	9.6	11.3	57.43	403.8	-343.1	205.3	187.7	17.66	11.628		
3,900.0	3,877.5	3,892.7	3,853.2	9.9	11.6	57.40	415.0	-353.0	210.8	192.7	18.14	11.625		
4,000.0	3,976.8	3,992.6	3,951.9	10.1	11.9	57.37	426.2	-362.9	216.4	197.7	18.62	11.623		
4,100.0	4,076.2	4,092.4	4,050.6	10.4	12.2	57.34	437.4	-372.9	221.9	202.8	19.09	11.620		
4,200.0	4,175.6	4,192.3	4,149.3	10.7	12.6	57.31	448.5	-382.8	227.4	207.8	19.57	11.618		
4,300.0	4,274.9	4,292.1	4,248.1	10.9	12.9	57.28	459.7	-392.7	232.9	212.8	20.05	11.615		
4,400.0	4,374.3	4,392.0	4,346.8	11.2	13.2	57.26	470.9	-402.6	238.4	217.9	20.53	11.613		
4,500.0	4,473.7	4,491.8	4,445.5	11.4	13.5	57.24	482.1	-412.6	243.9	222.9	21.01	11.611		
4,600.0	4,573.0	4,591.6	4,544.2	11.7	13.8	57.21	493.3	-422.5	249.4	227.9	21.49	11.609		
4,700.0	4,672.4	4,691.5	4,642.9	12.0	14.1	57.19	504.5	-432.4	254.9	233.0	21.96	11.607		
4,800.0	4,771.8	4,791.3	4,741.7	12.2	14.5	57.17	515.7	-442.4	260.5	238.0	22.44	11.606		
4,900.0	4,871.1	4,891.2	4,840.4	12.5	14.8	57.15	526.9	-452.3	266.0	243.1	22.92	11.604		
5,000.0	4,970.5	4,991.0	4,939.1	12.8	15.1	57.13	538.1	-462.2	271.5	248.1	23.40	11.602		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Fee 28-11B - DD - Plan #2													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	5,069.9	5,090.9	5,037.8	13.0	15.4	57.11	549.3	-472.2	277.0	253.1	11.601			
5,200.0	5,169.2	5,190.7	5,136.5	13.3	15.7	57.10	560.5	-482.1	282.5	258.2	11.599			
5,300.0	5,268.6	5,290.6	5,235.3	13.5	16.0	57.08	571.7	-492.0	288.0	263.2	11.598			
5,400.0	5,368.0	5,390.4	5,334.0	13.8	16.3	57.06	582.9	-501.9	293.5	268.2	11.596			
5,500.0	5,467.3	5,490.3	5,432.7	14.1	16.7	57.05	594.0	-511.9	299.0	273.3	11.595			
5,600.0	5,566.7	5,590.1	5,531.4	14.3	17.0	57.03	605.2	-521.8	304.6	278.3	11.594			
5,700.0	5,666.1	5,690.0	5,630.1	14.6	17.3	57.02	616.4	-531.7	310.1	283.3	11.592			
5,800.0	5,765.4	5,789.8	5,728.9	14.9	17.6	57.00	627.6	-541.7	315.6	288.4	11.591			
5,900.0	5,864.8	5,889.7	5,827.6	15.1	17.9	56.99	638.8	-551.6	321.1	293.4	11.590			
6,000.0	5,964.2	5,989.5	5,926.3	15.4	18.2	56.97	650.0	-561.5	326.6	298.4	11.589			
6,100.0	6,063.5	6,089.4	6,025.0	15.6	18.5	56.96	661.2	-571.5	332.1	303.5	11.588			
6,200.0	6,162.9	6,189.2	6,123.7	15.9	18.9	56.95	672.4	-581.4	337.6	308.5	11.587			
6,300.8	6,263.1	6,295.3	6,228.7	16.2	19.2	57.00	683.8	-591.5	342.8	313.1	11.565			
6,400.0	6,361.8	6,404.6	6,337.3	16.4	19.4	57.23	692.9	-599.6	346.1	316.0	11.500			
6,500.0	6,461.6	6,514.9	6,447.3	16.6	19.6	57.36	698.9	-604.9	348.5	318.0	11.436			
6,600.0	6,561.6	6,625.2	6,557.6	16.7	19.8	57.38	701.7	-607.4	349.7	319.0	11.371			
6,623.4	6,585.0	6,651.1	6,583.4	16.7	19.8	-2.02	701.9	-607.5	349.9	319.0	11.354			
6,700.0	6,661.6	6,729.2	6,661.6	16.8	19.9	-2.02	701.9	-607.6	349.9	318.9	11.281			
6,800.0	6,761.6	6,829.2	6,761.6	16.9	20.0	-2.02	701.9	-607.6	349.9	318.6	11.186			
6,900.0	6,861.6	6,929.2	6,861.6	17.1	20.1	-2.02	701.9	-607.6	349.9	318.3	11.092			
7,000.0	6,961.6	7,029.2	6,961.6	17.2	20.2	-2.02	701.9	-607.6	349.9	318.1	10.999			
7,100.0	7,061.6	7,129.2	7,061.6	17.3	20.3	-2.02	701.9	-607.6	349.9	317.8	10.907			
7,200.0	7,161.6	7,229.2	7,161.6	17.4	20.4	-2.02	701.9	-607.6	349.9	317.5	10.816			
7,300.0	7,261.6	7,329.2	7,261.6	17.6	20.5	-2.02	701.9	-607.6	349.9	317.3	10.726			
7,400.0	7,361.6	7,429.2	7,361.6	17.7	20.6	-2.02	701.9	-607.6	349.9	317.0	10.636			
7,500.0	7,461.6	7,529.2	7,461.6	17.8	20.7	-2.02	701.9	-607.6	349.9	316.7	10.548			
7,600.0	7,561.6	7,629.2	7,561.6	17.9	20.8	-2.02	701.9	-607.6	349.9	316.4	10.461			
7,700.0	7,661.6	7,729.2	7,661.6	18.1	21.0	-2.02	701.9	-607.6	349.9	316.2	10.375			
7,800.0	7,761.6	7,829.2	7,761.6	18.2	21.1	-2.02	701.9	-607.6	349.9	315.9	10.290			
7,900.0	7,861.6	7,929.2	7,861.6	18.3	21.2	-2.02	701.9	-607.6	349.9	315.6	10.206			
8,000.0	7,961.6	8,029.2	7,961.6	18.5	21.3	-2.02	701.9	-607.6	349.9	315.3	10.123			
8,100.0	8,061.6	8,129.2	8,061.6	18.6	21.4	-2.02	701.9	-607.6	349.9	315.0	10.041			
8,200.0	8,161.6	8,229.2	8,161.6	18.7	21.5	-2.02	701.9	-607.6	349.9	314.8	9.960			
8,300.0	8,261.6	8,329.2	8,261.6	18.9	21.6	-2.02	701.9	-607.6	349.9	314.5	9.880			
8,400.0	8,361.6	8,429.2	8,361.6	19.0	21.8	-2.02	701.9	-607.6	349.9	314.2	9.801			
8,500.0	8,461.6	8,529.2	8,461.6	19.1	21.9	-2.02	701.9	-607.6	349.9	313.9	9.723			
8,600.0	8,561.6	8,629.2	8,561.6	19.3	22.0	-2.02	701.9	-607.6	349.9	313.6	9.646			
8,700.0	8,661.6	8,729.2	8,661.6	19.4	22.1	-2.02	701.9	-607.6	349.9	313.3	9.569			
8,800.0	8,761.6	8,829.2	8,761.6	19.5	22.2	-2.02	701.9	-607.6	349.9	313.0	9.494			
8,900.0	8,861.6	8,929.2	8,861.6	19.7	22.4	-2.02	701.9	-607.6	349.9	312.7	9.420			
8,947.4	8,909.0	8,976.6	8,909.0	19.7	22.4	-2.02	701.9	-607.6	349.9	312.6	9.385 SF			
9,000.0	8,961.6	8,992.6	8,925.0	19.8	22.4	-2.02	701.9	-607.6	351.8	314.4	9.411			
9,100.0	9,061.6	8,992.6	8,925.0	20.0	22.4	-2.02	701.9	-607.6	375.6	338.1	10.008			
9,200.0	9,161.6	8,992.6	8,925.0	20.1	22.4	-2.02	701.9	-607.6	422.4	384.7	11.210			
9,300.0	9,261.6	8,992.6	8,925.0	20.2	22.4	-2.02	701.9	-607.6	485.5	447.7	12.836			
9,400.0	9,361.6	8,992.6	8,925.0	20.4	22.4	-2.02	701.9	-607.6	559.5	521.5	14.734			
9,500.0	9,461.6	8,992.6	8,925.0	20.5	22.4	-2.02	701.9	-607.6	640.6	602.5	16.804			
9,600.0	9,561.6	8,992.6	8,925.0	20.7	22.4	-2.02	701.9	-607.6	726.4	688.1	18.981			
9,700.0	9,661.6	8,992.6	8,925.0	20.8	22.4	-2.02	701.9	-607.6	815.5	777.0	21.226			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Fee 28-15A - DD - Plan #2													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	162.20	-25.5	8.2	26.8					
100.0	100.0	100.0	100.0	0.1	0.1	162.20	-25.5	8.2	26.8					
200.0	200.0	200.0	200.0	0.3	0.3	162.20	-25.5	8.2	26.8					
300.0	300.0	298.7	298.7	0.5	0.5	-144.82	-26.7	10.4	30.8			0.27	98.351	
400.0	399.6	395.9	395.5	0.7	0.7	-156.37	-30.3	17.0	44.3			0.62	43.097 CC, ES	
415.1	414.6	410.3	409.9	0.8	0.7	-157.92	-31.1	18.3	47.3			0.97	31.647 SF	
												1.33	33.365	
												1.38	34.230	
500.0	499.0	490.5	489.3	1.0	1.0	-164.68	-36.1	27.5	66.6			1.67	39.907	
600.0	598.4	582.6	580.0	1.2	1.3	-169.43	-43.8	41.7	94.4			2.00	47.081	
700.0	697.7	673.3	668.5	1.5	1.7	-172.38	-53.5	59.2	126.8			2.33	54.365	
800.0	797.1	767.3	760.0	1.7	2.1	-174.26	-64.0	78.5	160.6			2.66	60.259	
900.0	896.5	861.4	851.4	2.0	2.5	-175.50	-74.5	97.7	194.5			3.00	64.894	
1,000.0	995.8	955.4	942.8	2.2	2.9	-176.36	-85.0	116.9	228.4			3.33	68.617	
1,100.0	1,095.2	1,049.4	1,034.2	2.5	3.3	-177.00	-95.6	136.2	262.4			3.66	71.670	
1,200.0	1,194.6	1,143.4	1,125.6	2.8	3.7	-177.50	-106.1	155.4	296.5			3.99	74.218	
1,300.0	1,293.9	1,237.4	1,217.0	3.0	4.1	-177.89	-116.6	174.6	330.5			4.33	76.376	
1,400.0	1,393.3	1,331.4	1,308.4	3.3	4.6	-178.21	-127.2	193.9	364.6			4.66	78.227	
1,500.0	1,492.7	1,425.4	1,399.9	3.6	5.0	-178.47	-137.7	213.1	398.6			4.99	79.832	
1,600.0	1,592.0	1,519.4	1,491.3	3.8	5.4	-178.70	-148.2	232.3	432.7			5.33	81.236	
1,700.0	1,691.4	1,613.4	1,582.7	4.1	5.8	-178.89	-158.8	251.6	466.8			5.66	82.475	
1,800.0	1,790.8	1,707.4	1,674.1	4.3	6.3	-179.05	-169.3	270.8	500.8			5.99	83.577	
1,900.0	1,890.1	1,801.4	1,765.5	4.6	6.7	-179.20	-179.8	290.0	534.9			6.33	84.562	
2,000.0	1,989.5	1,895.4	1,856.9	4.9	7.1	-179.32	-190.4	309.3	569.0			6.66	85.449	
2,100.0	2,088.9	1,989.4	1,948.3	5.1	7.5	-179.44	-200.9	328.5	603.1			6.99	86.251	
2,200.0	2,188.2	2,083.4	2,039.7	5.4	7.9	-179.54	-211.4	347.7	637.2			7.33	86.981	
2,300.0	2,287.6	2,177.4	2,131.2	5.7	8.4	-179.63	-221.9	367.0	671.3			7.66	87.646	
2,400.0	2,387.0	2,271.4	2,222.6	5.9	8.8	-179.71	-232.5	386.2	705.3			7.99	88.257	
2,500.0	2,486.3	2,365.5	2,314.0	6.2	9.2	-179.78	-243.0	405.4	739.4			8.33	88.818	
2,600.0	2,585.7	2,459.5	2,405.4	6.4	9.6	-179.85	-253.5	424.7	773.5			8.66	89.336	
2,700.0	2,685.1	2,553.5	2,496.8	6.7	10.1	-179.91	-264.1	443.9	807.6			8.99	89.816	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Fee 28-6C - DD - Plan #2													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			
0.0	0.0	0.0	0.0	0.0	0.0	17.80	25.5	8.2	26.8					
100.0	100.0	100.0	100.0	0.1	0.1	17.80	25.5	8.2	26.8	26.5	0.27	98.351		
200.0	200.0	200.0	200.0	0.3	0.3	17.80	25.5	8.2	26.8	26.2	0.62	43.097 CC, ES		
300.0	300.0	299.1	299.0	0.5	0.5	78.31	27.7	6.8	27.9	26.9	0.98	28.388		
400.0	399.6	398.1	397.7	0.7	0.7	81.22	34.2	2.8	31.2	29.8	1.41	22.229		
415.1	414.6	413.0	412.6	0.8	0.8	81.75	35.6	1.9	31.9	30.5	1.48	21.623		
500.0	499.0	496.9	495.7	1.0	1.0	82.12	45.0	-4.0	37.2	35.3	1.89	19.617		
600.0	598.4	595.4	592.6	1.2	1.3	77.71	60.0	-13.4	46.1	43.7	2.41	19.159		
700.0	697.7	694.8	690.1	1.5	1.7	73.47	76.5	-23.6	56.4	53.5	2.91	19.389		
800.0	797.1	794.2	787.6	1.7	2.1	70.55	93.0	-33.9	67.0	63.6	3.41	19.655		
900.0	896.5	893.6	885.0	2.0	2.4	68.42	109.5	-44.2	77.6	73.7	3.90	19.912		
1,000.0	995.8	993.0	982.5	2.2	2.8	66.81	126.1	-54.5	88.3	83.9	4.38	20.146		
1,100.0	1,095.2	1,092.4	1,080.0	2.5	3.2	65.54	142.6	-64.8	99.1	94.2	4.87	20.355		
1,200.0	1,194.6	1,191.8	1,177.5	2.8	3.6	64.53	159.1	-75.1	109.9	104.5	5.35	20.540		
1,300.0	1,293.9	1,291.2	1,274.9	3.0	3.9	63.69	175.6	-85.4	120.7	114.9	5.83	20.705		
1,400.0	1,393.3	1,390.6	1,372.4	3.3	4.3	63.00	192.1	-95.7	131.6	125.3	6.31	20.851		
1,500.0	1,492.7	1,490.0	1,469.9	3.6	4.7	62.41	208.6	-106.0	142.5	135.7	6.79	20.982		
1,600.0	1,592.0	1,589.4	1,567.4	3.8	5.1	61.90	225.1	-116.3	153.4	146.1	7.27	21.099		
1,700.0	1,691.4	1,688.8	1,664.8	4.1	5.5	61.46	241.6	-126.6	164.3	156.5	7.75	21.204		
1,800.0	1,790.8	1,788.2	1,762.3	4.3	5.8	61.08	258.1	-136.9	175.2	166.9	8.22	21.300		
1,900.0	1,890.1	1,887.6	1,859.8	4.6	6.2	60.74	274.6	-147.2	186.1	177.4	8.70	21.386		
2,000.0	1,989.5	1,987.0	1,957.3	4.9	6.6	60.44	291.1	-157.5	197.0	187.8	9.18	21.465		
2,100.0	2,088.9	2,086.4	2,054.7	5.1	7.0	60.17	307.6	-167.8	207.9	198.3	9.65	21.537		
2,200.0	2,188.2	2,185.8	2,152.2	5.4	7.4	59.92	324.1	-178.1	218.9	208.7	10.13	21.604		
2,300.0	2,287.6	2,285.2	2,249.7	5.7	7.8	59.70	340.6	-188.4	229.8	219.2	10.61	21.665		
2,400.0	2,387.0	2,384.6	2,347.2	5.9	8.1	59.50	357.1	-198.7	240.7	229.6	11.08	21.721		
2,500.0	2,486.3	2,484.0	2,444.6	6.2	8.5	59.32	373.6	-209.0	251.7	240.1	11.56	21.773		
2,600.0	2,585.7	2,583.4	2,542.1	6.4	8.9	59.16	390.1	-219.2	262.6	250.6	12.03	21.822		
2,700.0	2,685.1	2,682.8	2,639.6	6.7	9.3	59.00	406.7	-229.5	273.5	261.0	12.51	21.867		
2,800.0	2,784.4	2,782.2	2,737.1	7.0	9.7	58.86	423.2	-239.8	284.5	271.5	12.98	21.909		
2,900.0	2,883.8	2,881.6	2,834.5	7.2	10.1	58.73	439.7	-250.1	295.4	282.0	13.46	21.949		
3,000.0	2,983.2	2,980.9	2,932.0	7.5	10.4	58.61	456.2	-260.4	306.4	292.4	13.94	21.986		
3,100.0	3,082.5	3,080.3	3,029.5	7.8	10.8	58.49	472.7	-270.7	317.3	302.9	14.41	22.020		
3,200.0	3,181.9	3,179.7	3,127.0	8.0	11.2	58.39	489.2	-281.0	328.3	313.4	14.89	22.053		
3,300.0	3,281.3	3,279.1	3,224.4	8.3	11.6	58.29	505.7	-291.3	339.2	323.9	15.36	22.084		
3,400.0	3,380.6	3,378.5	3,321.9	8.5	12.0	58.19	522.2	-301.6	350.2	334.3	15.84	22.113		
3,500.0	3,480.0	3,477.9	3,419.4	8.8	12.3	58.11	538.7	-311.9	361.1	344.8	16.31	22.141		
3,600.0	3,579.4	3,577.3	3,516.9	9.1	12.7	58.02	555.2	-322.2	372.1	355.3	16.79	22.167		
3,700.0	3,678.7	3,676.7	3,614.3	9.3	13.1	57.95	571.7	-332.5	383.0	365.8	17.26	22.191		
3,800.0	3,778.1	3,776.1	3,711.8	9.6	13.5	57.87	588.2	-342.8	394.0	376.3	17.74	22.215		
3,900.0	3,877.5	3,875.5	3,809.3	9.9	13.9	57.80	604.7	-353.1	405.0	386.7	18.21	22.237		
4,000.0	3,976.8	3,974.9	3,906.8	10.1	14.3	57.74	621.2	-363.4	415.9	397.2	18.69	22.258		
4,100.0	4,076.2	4,074.3	4,004.2	10.4	14.6	57.68	637.7	-373.7	426.9	407.7	19.16	22.279		
4,200.0	4,175.6	4,173.7	4,101.7	10.7	15.0	57.62	654.2	-384.0	437.8	418.2	19.64	22.298		
4,300.0	4,274.9	4,273.1	4,199.2	10.9	15.4	57.56	670.8	-394.3	448.8	428.7	20.11	22.316		
4,400.0	4,374.3	4,372.5	4,296.7	11.2	15.8	57.51	687.3	-404.6	459.7	439.2	20.58	22.334		
4,500.0	4,473.7	4,471.9	4,394.1	11.4	16.2	57.45	703.8	-414.9	470.7	449.6	21.06	22.351		
4,600.0	4,573.0	4,571.3	4,491.6	11.7	16.6	57.41	720.3	-425.1	481.7	460.1	21.53	22.367		
4,700.0	4,672.4	4,670.7	4,589.1	12.0	16.9	57.36	736.8	-435.4	492.6	470.6	22.01	22.383		
4,800.0	4,771.8	4,770.1	4,686.6	12.2	17.3	57.31	753.3	-445.7	503.6	481.1	22.48	22.398		
4,900.0	4,871.1	4,869.5	4,784.0	12.5	17.7	57.27	769.8	-456.0	514.5	491.6	22.96	22.412		
5,000.0	4,970.5	4,968.9	4,881.5	12.8	18.1	57.23	786.3	-466.3	525.5	502.1	23.43	22.426		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Fee 28-6C - DD - Plan #2													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		
5,100.0	5,069.9	5,068.3	4,979.0	13.0	18.5	57.19	802.8	-476.6	536.4	512.5	23.91	22.439		
5,200.0	5,169.2	5,167.7	5,076.5	13.3	18.9	57.15	819.3	-486.9	547.4	523.0	24.38	22.452		
5,300.0	5,268.6	5,267.1	5,173.9	13.5	19.2	57.12	835.8	-497.2	558.4	533.5	24.86	22.464		
5,400.0	5,368.0	5,366.5	5,271.4	13.8	19.6	57.08	852.3	-507.5	569.3	544.0	25.33	22.476		
5,500.0	5,467.3	5,465.9	5,368.9	14.1	20.0	57.05	868.8	-517.8	580.3	554.5	25.81	22.487		
5,600.0	5,566.7	5,565.3	5,466.4	14.3	20.4	57.02	885.3	-528.1	591.3	565.0	26.28	22.498		
5,700.0	5,666.1	5,664.7	5,563.8	14.6	20.8	56.99	901.8	-538.4	602.2	575.5	26.75	22.509		
5,800.0	5,765.4	5,764.1	5,661.3	14.9	21.2	56.96	918.3	-548.7	613.2	585.9	27.23	22.519		
5,900.0	5,864.8	5,863.5	5,758.8	15.1	21.5	56.93	934.9	-559.0	624.1	596.4	27.70	22.529		
6,000.0	5,964.2	5,962.9	5,856.3	15.4	21.9	56.90	951.4	-569.3	635.1	606.9	28.18	22.539		
6,100.0	6,063.5	6,062.3	5,953.7	15.6	22.3	56.87	967.9	-579.6	646.1	617.4	28.65	22.548		
6,200.0	6,162.9	6,161.7	6,051.2	15.9	22.7	56.85	984.4	-589.9	657.0	627.9	29.13	22.557		
6,300.8	6,263.1	6,286.4	6,174.0	16.2	23.1	56.93	1,002.9	-601.4	666.3	636.6	29.67	22.458		
6,400.0	6,361.8	6,410.6	6,297.1	16.4	23.4	57.18	1,016.9	-610.2	672.6	642.4	30.17	22.296		
6,500.0	6,461.6	6,536.1	6,422.1	16.6	23.7	57.33	1,026.4	-616.1	677.1	646.5	30.57	22.148		
6,600.0	6,561.6	6,661.9	6,547.8	16.7	23.8	57.36	1,031.2	-619.1	679.6	648.7	30.88	22.011		
6,623.4	6,585.0	6,691.4	6,577.2	16.7	23.8	-2.04	1,031.7	-619.4	679.9	649.0	30.94	21.976		
6,700.0	6,661.6	6,775.7	6,661.6	16.8	23.9	-2.05	1,031.9	-619.5	680.1	649.0	31.15	21.835		
6,800.0	6,761.6	6,875.7	6,761.6	16.9	24.0	-2.05	1,031.9	-619.5	680.1	648.7	31.41	21.652		
6,900.0	6,861.6	6,975.7	6,861.6	17.1	24.1	-2.05	1,031.9	-619.5	680.1	648.4	31.68	21.470		
7,000.0	6,961.6	7,075.7	6,961.6	17.2	24.2	-2.05	1,031.9	-619.5	680.1	648.2	31.94	21.291		
7,100.0	7,061.6	7,175.7	7,061.6	17.3	24.3	-2.05	1,031.9	-619.5	680.1	647.9	32.21	21.114		
7,200.0	7,161.6	7,275.7	7,161.6	17.4	24.4	-2.05	1,031.9	-619.5	680.1	647.6	32.48	20.938		
7,300.0	7,261.6	7,375.7	7,261.6	17.6	24.5	-2.05	1,031.9	-619.5	680.1	647.4	32.75	20.765		
7,400.0	7,361.6	7,475.7	7,361.6	17.7	24.5	-2.05	1,031.9	-619.5	680.1	647.1	33.03	20.593		
7,500.0	7,461.6	7,575.7	7,461.6	17.8	24.6	-2.05	1,031.9	-619.5	680.1	646.8	33.30	20.423		
7,600.0	7,561.6	7,675.7	7,561.6	17.9	24.7	-2.05	1,031.9	-619.5	680.1	646.5	33.58	20.256		
7,700.0	7,661.6	7,775.7	7,661.6	18.1	24.8	-2.05	1,031.9	-619.5	680.1	646.3	33.85	20.090		
7,800.0	7,761.6	7,875.7	7,761.6	18.2	24.9	-2.05	1,031.9	-619.5	680.1	646.0	34.13	19.926		
7,900.0	7,861.6	7,975.7	7,861.6	18.3	25.0	-2.05	1,031.9	-619.5	680.1	645.7	34.41	19.764		
8,000.0	7,961.6	8,075.7	7,961.6	18.5	25.1	-2.05	1,031.9	-619.5	680.1	645.4	34.69	19.604		
8,100.0	8,061.6	8,175.7	8,061.6	18.6	25.2	-2.05	1,031.9	-619.5	680.1	645.1	34.97	19.446		
8,200.0	8,161.6	8,275.7	8,161.6	18.7	25.3	-2.05	1,031.9	-619.5	680.1	644.8	35.26	19.290		
8,300.0	8,261.6	8,375.7	8,261.6	18.9	25.4	-2.05	1,031.9	-619.5	680.1	644.6	35.54	19.135		
8,400.0	8,361.6	8,475.7	8,361.6	19.0	25.5	-2.05	1,031.9	-619.5	680.1	644.3	35.83	18.983		
8,500.0	8,461.6	8,575.7	8,461.6	19.1	25.6	-2.05	1,031.9	-619.5	680.1	644.0	36.11	18.832		
8,600.0	8,561.6	8,675.7	8,561.6	19.3	25.7	-2.05	1,031.9	-619.5	680.1	643.7	36.40	18.683		
8,700.0	8,661.6	8,775.7	8,661.6	19.4	25.8	-2.05	1,031.9	-619.5	680.1	643.4	36.69	18.536		
8,800.0	8,761.6	8,875.7	8,761.6	19.5	25.9	-2.05	1,031.9	-619.5	680.1	643.1	36.98	18.391		
8,900.0	8,861.6	8,975.7	8,861.6	19.7	26.0	-2.05	1,031.9	-619.5	680.1	642.8	37.27	18.247		
8,957.5	8,919.1	9,033.2	8,919.1	19.8	26.1	-2.05	1,031.9	-619.5	680.1	642.7	37.44	18.165		
9,000.0	8,961.6	9,054.2	8,940.0	19.8	26.1	-2.05	1,031.9	-619.5	680.4	642.9	37.53	18.130 SF		
9,100.0	9,061.6	9,054.2	8,940.0	20.0	26.1	-2.05	1,031.9	-619.5	690.9	653.2	37.68	18.336		
9,200.0	9,161.6	9,054.2	8,940.0	20.1	26.1	-2.05	1,031.9	-619.5	715.3	677.5	37.83	18.910		
9,300.0	9,261.6	9,054.2	8,940.0	20.2	26.1	-2.05	1,031.9	-619.5	752.3	714.3	37.97	19.811		
9,400.0	9,361.6	9,054.2	8,940.0	20.4	26.1	-2.05	1,031.9	-619.5	800.2	762.1	38.12	20.990		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Fee 28-9B - DD - Plan #2													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	43.11	8.7	8.2	12.0					
100.0	100.0	100.0	100.0	0.1	0.1	43.11	8.7	8.2	12.0	11.7	0.27	43.981		
200.0	200.0	200.0	200.0	0.3	0.3	43.11	8.7	8.2	12.0	11.4	0.62	19.273 CC, ES		
300.0	300.0	299.2	299.2	0.5	0.5	116.06	9.7	10.6	15.3	14.4	0.98	15.713 SF		
400.0	399.6	397.1	396.8	0.7	0.7	133.56	12.6	17.6	27.7	26.4	1.34	20.653		
415.1	414.6	411.7	411.3	0.8	0.7	135.35	13.2	19.0	30.5	29.1	1.40	21.795		
500.0	499.0	493.0	491.8	1.0	1.0	141.23	17.2	29.0	48.5	46.8	1.71	28.337		
600.0	598.4	586.7	584.0	1.2	1.3	143.20	23.4	44.3	74.3	72.2	2.09	35.521		
700.0	697.7	677.9	672.9	1.5	1.7	143.39	31.1	63.3	104.6	102.1	2.48	42.219		
800.0	797.1	772.3	764.4	1.7	2.1	143.19	40.0	85.1	137.2	134.3	2.87	47.728		
900.0	896.5	866.9	866.0	2.0	2.6	143.07	48.8	106.9	169.7	166.5	3.27	51.870		
1,000.0	995.8	961.4	947.5	2.2	3.0	142.99	57.7	128.7	202.3	198.6	3.67	55.089		
1,100.0	1,095.2	1,056.0	1,039.1	2.5	3.5	142.93	66.5	150.4	234.9	230.8	4.07	57.659		
1,200.0	1,194.6	1,150.5	1,130.7	2.8	3.9	142.89	75.4	172.2	267.4	263.0	4.48	59.757		
1,300.0	1,293.9	1,245.1	1,222.3	3.0	4.4	142.85	84.2	194.0	300.0	295.1	4.88	61.502		
1,400.0	1,393.3	1,339.6	1,313.8	3.3	4.8	142.83	93.1	215.8	332.6	327.3	5.28	62.975		
1,500.0	1,492.7	1,434.2	1,405.4	3.6	5.2	142.80	101.9	237.6	365.1	359.5	5.68	64.235		
1,600.0	1,592.0	1,528.7	1,497.0	3.8	5.7	142.78	110.8	259.4	397.7	391.6	6.09	65.324		
1,700.0	1,691.4	1,623.3	1,588.6	4.1	6.1	142.77	119.6	281.2	430.3	423.8	6.49	66.275		
1,800.0	1,790.8	1,717.8	1,680.1	4.3	6.6	142.75	128.5	303.0	462.8	455.9	6.90	67.113		
1,900.0	1,890.1	1,812.4	1,771.7	4.6	7.0	142.74	137.3	324.8	495.4	488.1	7.30	67.857		
2,000.0	1,989.5	1,906.9	1,863.3	4.9	7.5	142.73	146.2	346.6	528.0	520.3	7.71	68.521		
2,100.0	2,088.9	2,001.5	1,954.9	5.1	8.0	142.72	155.0	368.4	560.5	552.4	8.11	69.118		
2,200.0	2,188.2	2,096.0	2,046.4	5.4	8.4	142.71	163.9	390.2	593.1	584.6	8.51	69.658		
2,300.0	2,287.6	2,190.6	2,138.0	5.7	8.9	142.70	172.7	412.0	625.7	616.8	8.92	70.147		
2,400.0	2,387.0	2,285.1	2,229.6	5.9	9.3	142.70	181.6	433.8	658.2	648.9	9.32	70.594		
2,500.0	2,486.3	2,379.7	2,321.2	6.2	9.8	142.69	190.4	455.6	690.8	681.1	9.73	71.003		
2,600.0	2,585.7	2,474.2	2,412.7	6.4	10.2	142.69	199.3	477.4	723.4	713.2	10.13	71.378		
2,700.0	2,685.1	2,568.7	2,504.3	6.7	10.7	142.68	208.1	499.2	755.9	745.4	10.54	71.725		
2,800.0	2,784.4	2,663.3	2,595.9	7.0	11.1	142.68	217.0	521.0	788.5	777.6	10.94	72.046		
2,900.0	2,883.8	2,757.8	2,687.5	7.2	11.6	142.67	225.8	542.8	821.1	809.7	11.35	72.343		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - Benjamin Fee 33-1B - DD - Plan #2													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	-99.53	-16.8	-99.8	101.2					
100.0	100.0	100.0	100.0	0.1	0.1	-99.53	-16.8	-99.8	101.2	100.9	0.27	371.700		
200.0	200.0	200.0	200.0	0.3	0.3	-99.53	-16.8	-99.8	101.2	100.6	0.62	162.880		
300.0	300.0	300.0	300.0	0.5	0.5	-41.16	-16.8	-99.8	99.2	98.2	0.97	101.907		
400.0	399.6	399.6	399.6	0.7	0.7	-44.44	-16.8	-99.8	93.4	92.1	1.34	69.512		
415.1	414.6	415.3	415.3	0.8	0.7	-45.22	-16.8	-99.7	92.2	90.8	1.40	65.710		
500.0	499.0	503.3	503.3	1.0	0.8	-50.56	-16.8	-97.0	83.3	81.5	1.75	47.610		
600.0	598.4	604.1	603.8	1.2	1.0	-60.29	-17.1	-89.1	69.8	67.6	2.19	31.885		
700.0	697.7	701.2	700.2	1.5	1.3	-77.93	-20.8	-78.3	59.2	56.5	2.71	21.815		
750.2	747.6	749.2	747.6	1.6	1.4	-90.04	-24.1	-72.1	57.5	54.5	3.01	19.101 CC, ES		
800.0	797.1	796.2	793.9	1.7	1.6	-102.87	-28.4	-65.3	59.4	56.1	3.27	18.187 SF		
900.0	896.5	888.7	884.5	2.0	1.9	-125.01	-39.7	-50.3	74.9	71.3	3.64	20.580		
1,000.0	995.8	978.3	971.3	2.2	2.3	-138.95	-54.2	-33.6	102.6	98.7	3.90	26.314		
1,100.0	1,095.2	1,064.8	1,054.1	2.5	2.7	-146.96	-71.5	-15.5	138.2	134.0	4.15	33.333		
1,200.0	1,194.6	1,148.1	1,132.7	2.8	3.2	-151.65	-91.2	3.7	179.4	175.0	4.40	40.751		
1,300.0	1,293.9	1,228.0	1,207.0	3.0	3.8	-154.53	-112.9	23.8	225.2	220.5	4.67	48.233		
1,400.0	1,393.3	1,307.6	1,279.6	3.3	4.3	-156.41	-137.1	45.3	274.9	270.0	4.94	55.634		
1,500.0	1,492.7	1,389.4	1,353.6	3.6	5.0	-157.74	-163.4	68.3	326.6	321.4	5.23	62.477		
1,600.0	1,592.0	1,474.8	1,430.9	3.8	5.6	-158.76	-190.8	92.2	378.5	372.9	5.52	68.520		
1,700.0	1,691.4	1,560.1	1,508.1	4.1	6.3	-159.53	-218.1	116.1	430.4	424.5	5.82	73.914		
1,800.0	1,790.8	1,645.5	1,585.3	4.3	6.9	-160.14	-245.5	140.0	482.3	476.2	6.12	78.750		
1,900.0	1,890.1	1,730.8	1,662.5	4.6	7.6	-160.63	-272.9	163.9	534.3	527.9	6.43	83.105		
2,000.0	1,989.5	1,816.2	1,739.7	4.9	8.2	-161.03	-300.3	187.9	586.3	579.5	6.74	87.042		
2,100.0	2,088.9	1,901.5	1,816.9	5.1	8.9	-161.37	-327.7	211.8	638.3	631.3	7.04	90.616		
2,200.0	2,188.2	1,986.9	1,894.2	5.4	9.6	-161.66	-355.1	235.7	690.3	683.0	7.35	93.867		
2,300.0	2,287.6	2,072.2	1,971.4	5.7	10.2	-161.90	-382.5	259.6	742.4	734.7	7.67	96.841		
2,400.0	2,387.0	2,157.6	2,048.6	5.9	10.9	-162.12	-409.8	283.6	794.4	786.4	7.98	99.571		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - GMR 28-7D Existing - DD - Schlumberger Surveys													Offset Site Error:	0.0 ft
Survey Program: 140-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	-125.19	-70.4	-99.8	122.1					
100.0	100.0	102.3	102.3	0.1	0.2	-124.95	-69.4	-99.3	121.2	120.9	0.29	413.946		
200.0	200.0	204.6	204.5	0.3	0.3	-124.39	-66.8	-97.6	118.4	117.7	0.65	183.030		
300.0	300.0	309.1	308.9	0.5	0.6	-66.07	-62.8	-93.2	111.7	110.7	1.00	112.154		
400.0	399.6	410.8	410.1	0.7	0.8	-70.53	-57.1	-85.5	99.3	97.9	1.39	71.600		
415.1	414.6	426.0	425.2	0.8	0.8	-71.60	-56.2	-84.2	97.1	95.7	1.45	67.058		
500.0	499.0	511.2	509.8	1.0	1.1	-77.66	-49.4	-76.7	84.5	82.7	1.81	46.781		
600.0	598.4	611.5	609.1	1.2	1.4	-87.41	-39.3	-66.4	68.6	66.3	2.26	30.319		
700.0	697.7	710.6	706.6	1.5	1.7	-103.67	-27.3	-54.1	53.1	50.3	2.80	18.945		
800.0	797.1	808.9	802.9	1.7	2.1	-130.96	-12.6	-40.6	41.8	38.3	3.50	11.962		
842.3	839.1	849.9	842.9	1.8	2.3	-146.25	-5.7	-34.4	40.4	36.6	3.80	10.642 CC, ES		
900.0	896.5	905.6	896.9	2.0	2.6	-167.58	4.4	-25.6	43.3	39.2	4.11	10.533 SF		
1,000.0	995.8	1,001.0	989.0	2.2	3.0	164.77	23.6	-9.8	59.8	55.3	4.53	13.194		
1,100.0	1,095.2	1,093.7	1,077.6	2.5	3.6	149.31	44.2	7.8	86.3	81.4	4.93	17.491		
1,200.0	1,194.6	1,185.4	1,164.5	2.8	4.1	140.44	66.4	27.0	118.2	112.8	5.35	22.104		
1,300.0	1,293.9	1,275.4	1,249.3	3.0	4.7	135.14	89.0	47.3	153.5	147.7	5.77	26.610		
1,400.0	1,393.3	1,365.6	1,333.6	3.3	5.3	131.73	112.3	69.2	191.4	185.2	6.19	30.894		
1,500.0	1,492.7	1,462.7	1,424.7	3.6	5.9	129.24	137.3	92.0	228.9	222.2	6.65	34.425		
1,600.0	1,592.0	1,552.4	1,509.0	3.8	6.5	127.60	160.1	112.5	265.9	258.8	7.08	37.533		
1,700.0	1,691.4	1,641.7	1,592.5	4.1	7.0	126.43	182.8	134.2	304.5	296.9	7.53	40.455		
1,800.0	1,790.8	1,738.3	1,683.0	4.3	7.7	125.46	207.3	157.3	342.8	334.8	7.99	42.900		
1,900.0	1,890.1	1,833.6	1,772.6	4.6	8.2	124.66	231.4	179.2	380.1	371.7	8.46	44.959		
2,000.0	1,989.5	1,922.3	1,856.0	4.9	8.8	124.02	253.8	199.3	417.4	408.5	8.90	46.884		
2,100.0	2,088.9	2,006.2	1,934.4	5.1	9.4	123.53	275.5	219.8	456.4	447.1	9.34	48.874		
2,200.0	2,188.2	2,101.2	2,023.1	5.4	10.0	123.08	300.2	243.4	495.9	486.1	9.80	50.587		
2,300.0	2,287.6	2,192.9	2,108.8	5.7	10.6	122.70	323.8	265.9	535.1	524.8	10.26	52.146		
2,400.0	2,387.0	2,288.6	2,198.2	5.9	11.2	122.36	348.6	289.3	574.3	563.5	10.73	53.519		
2,500.0	2,486.3	2,393.4	2,296.7	6.2	11.9	122.01	375.3	313.5	612.0	600.8	11.22	54.528		
2,600.0	2,585.7	2,494.1	2,391.8	6.4	12.5	121.70	400.2	335.1	648.1	636.4	11.70	55.375		
2,700.0	2,685.1	2,592.4	2,484.9	6.7	13.0	121.46	424.1	355.5	683.4	671.2	12.18	56.116		
2,800.0	2,784.4	2,687.0	2,574.7	7.0	13.6	121.27	446.7	375.1	718.4	705.7	12.64	56.828		
2,900.0	2,883.8	2,777.6	2,660.8	7.2	14.1	121.14	467.9	393.9	753.3	740.2	13.10	57.500		
3,000.0	2,983.2	2,859.5	2,738.2	7.5	14.7	121.01	487.7	411.6	789.2	775.7	13.54	58.279		
3,100.0	3,082.5	2,948.3	2,821.8	7.8	15.2	120.85	510.0	431.6	826.4	812.4	14.00	59.046		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design K28NW Pad - GMU 28-14D Existing - Schlumberger Surveys - Schlumberger Surveys													Offset Site Error:	0.0 ft
Survey Program: 270-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	-132.65	-107.8	-117.1	159.1					
100.0	100.0	100.1	100.1	0.1	0.2	-132.63	-107.8	-117.1	159.1	158.8	0.30	536.146		
200.0	200.0	200.3	200.3	0.3	0.3	-132.59	-107.6	-117.0	159.0	158.3	0.63	251.577		
300.0	300.0	300.1	300.1	0.5	0.5	-74.07	-107.3	-117.0	158.0	157.1	0.98	161.519		
400.0	399.6	398.2	398.2	0.7	0.7	-76.91	-107.7	-117.1	156.3	155.0	1.37	114.269		
415.1	414.6	412.7	412.7	0.8	0.7	-77.48	-107.8	-117.2	156.1	154.7	1.43	109.246		
465.2	464.4	461.2	461.2	0.9	0.8	-79.40	-108.3	-117.8	155.9	154.2	1.64	95.274 CC		
500.0	499.0	495.4	495.4	1.0	0.8	-80.75	-108.8	-118.4	156.0	154.2	1.78	87.535 ES		
600.0	598.4	592.8	592.8	1.2	1.0	-84.71	-111.0	-120.1	157.4	155.2	2.21	71.363		
700.0	697.7	688.3	688.1	1.5	1.2	-88.85	-115.1	-121.9	161.4	158.8	2.63	61.386		
800.0	797.1	784.0	783.6	1.7	1.4	-92.72	-121.2	-124.9	168.8	165.7	3.05	55.276		
900.0	896.5	881.6	880.9	2.0	1.6	-96.13	-128.4	-129.2	178.2	174.7	3.48	51.209		
1,000.0	995.8	975.8	974.5	2.2	1.8	-98.65	-135.9	-135.0	189.5	185.6	3.90	48.533		
1,100.0	1,095.2	1,067.7	1,065.6	2.5	2.1	-100.38	-145.5	-143.2	204.3	200.0	4.33	47.189		
1,200.0	1,194.6	1,158.7	1,155.1	2.8	2.3	-101.40	-157.3	-154.0	222.6	217.9	4.76	46.735 SF		
1,300.0	1,293.9	1,249.5	1,243.9	3.0	2.7	-101.95	-171.4	-166.9	244.2	239.0	5.21	46.909		
1,400.0	1,393.3	1,339.0	1,330.9	3.3	3.0	-102.41	-187.6	-180.3	268.4	262.8	5.65	47.518		
1,500.0	1,492.7	1,428.8	1,417.6	3.6	3.5	-102.81	-206.4	-194.4	295.6	289.4	6.11	48.387		
1,600.0	1,592.0	1,521.0	1,506.0	3.8	3.9	-102.86	-226.5	-210.8	324.1	317.5	6.58	49.246		
1,700.0	1,691.4	1,618.5	1,599.3	4.1	4.4	-102.64	-247.7	-229.7	353.1	346.1	7.08	49.893		
1,800.0	1,790.8	1,718.2	1,694.8	4.3	4.9	-102.37	-268.4	-249.3	381.3	373.7	7.58	50.309		
1,900.0	1,890.1	1,810.4	1,783.2	4.6	5.4	-102.11	-287.2	-267.6	409.3	401.2	8.07	50.721		
2,000.0	1,989.5	1,901.0	1,869.8	4.9	5.9	-101.87	-306.7	-286.1	438.4	429.9	8.55	51.257		
2,100.0	2,088.9	1,994.2	1,958.5	5.1	6.4	-101.64	-327.5	-305.4	468.4	459.4	9.05	51.763		
2,200.0	2,188.2	2,087.8	2,047.6	5.4	6.9	-101.41	-348.6	-325.1	498.8	489.2	9.54	52.257		
2,300.0	2,287.6	2,192.3	2,147.1	5.7	7.5	-101.11	-371.5	-347.5	528.6	518.5	10.09	52.373		
2,400.0	2,387.0	2,290.0	2,240.4	5.9	8.0	-100.70	-390.5	-369.3	556.5	545.9	10.62	52.413		
2,500.0	2,486.3	2,387.3	2,333.2	6.2	8.6	-100.19	-408.7	-392.1	584.1	573.0	11.17	52.301		
2,600.0	2,585.7	2,475.5	2,416.8	6.4	9.1	-99.68	-425.9	-414.0	613.0	601.4	11.68	52.478		
2,700.0	2,685.1	2,562.3	2,498.8	6.7	9.7	-99.15	-443.5	-436.6	643.2	631.0	12.17	52.853		
2,800.0	2,784.4	2,646.9	2,578.5	7.0	10.2	-98.82	-462.4	-457.6	674.8	662.2	12.63	53.435		
2,900.0	2,883.8	2,739.5	2,665.8	7.2	10.7	-98.71	-485.1	-478.6	707.6	694.5	13.11	53.959		
3,000.0	2,983.2	2,838.4	2,759.5	7.5	11.3	-98.73	-509.4	-499.2	739.7	726.1	13.61	54.342		
3,100.0	3,082.5	2,925.2	2,841.6	7.8	11.8	-98.88	-531.6	-516.0	772.4	758.3	14.07	54.897		
3,200.0	3,181.9	3,021.2	2,932.7	8.0	12.3	-99.31	-557.7	-531.2	805.3	790.7	14.53	55.431		

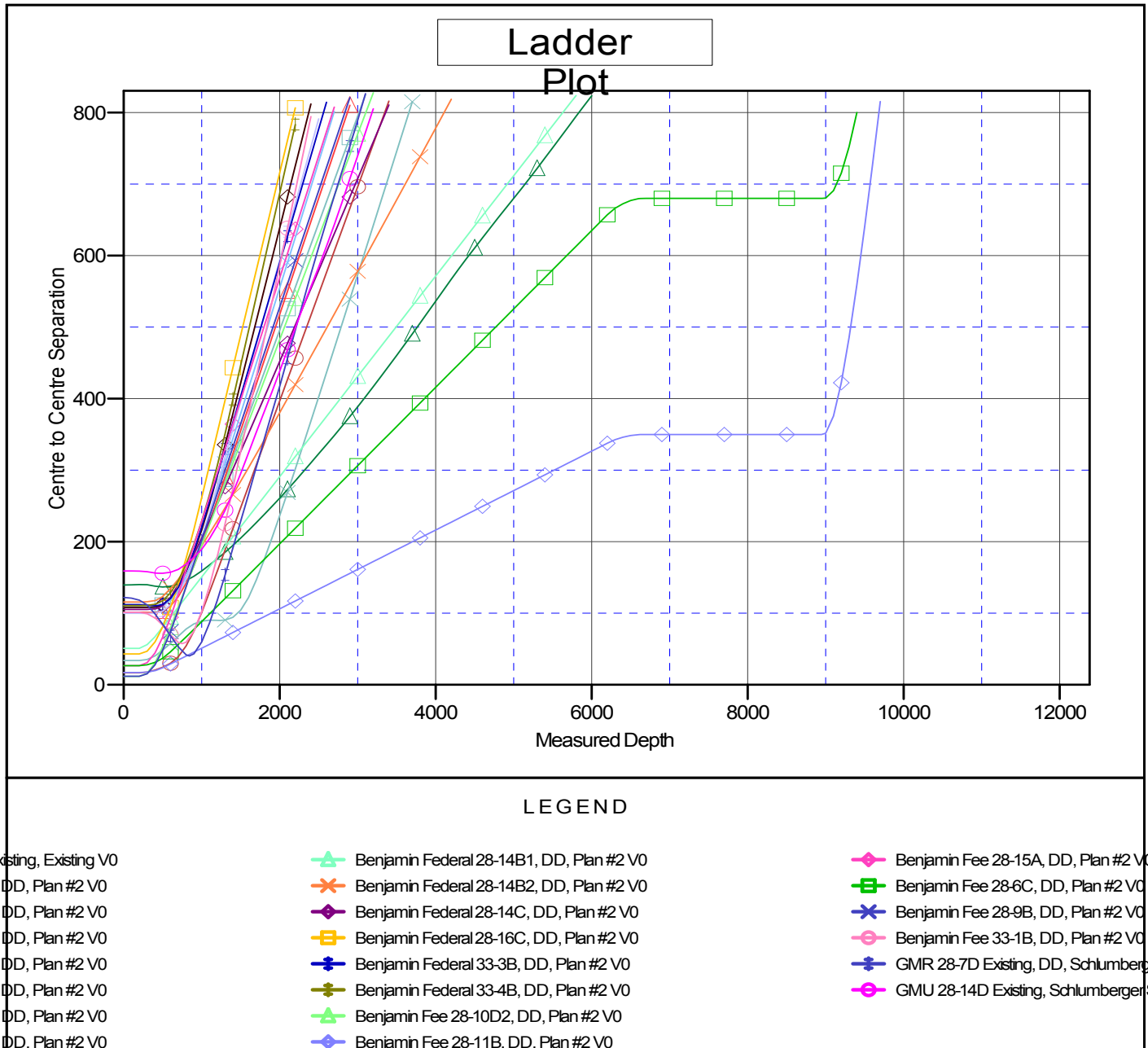
# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Benjamin Fee 28-11A
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Reference Site:</b>	K28NW Pad	<b>MD Reference:</b>	WELL @ 5965.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Benjamin Fee 28-11A	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5965.0ft (Original Well Elev)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Benjamin Fee 28-11A  
 Coordinate System is US State Plane 1983, Colorado Central Zone  
 Grid Convergence at Surface is: -1.44°



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