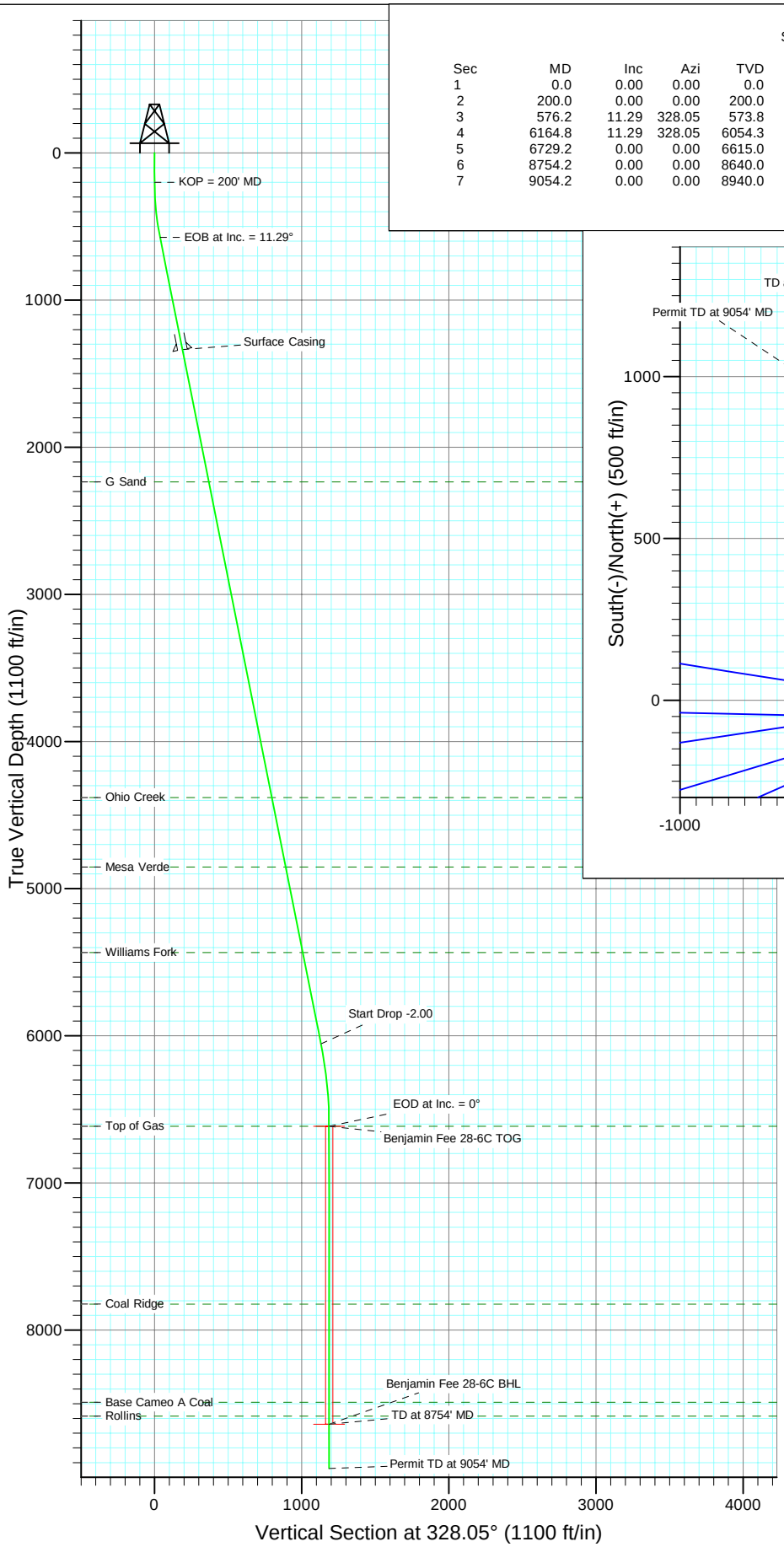
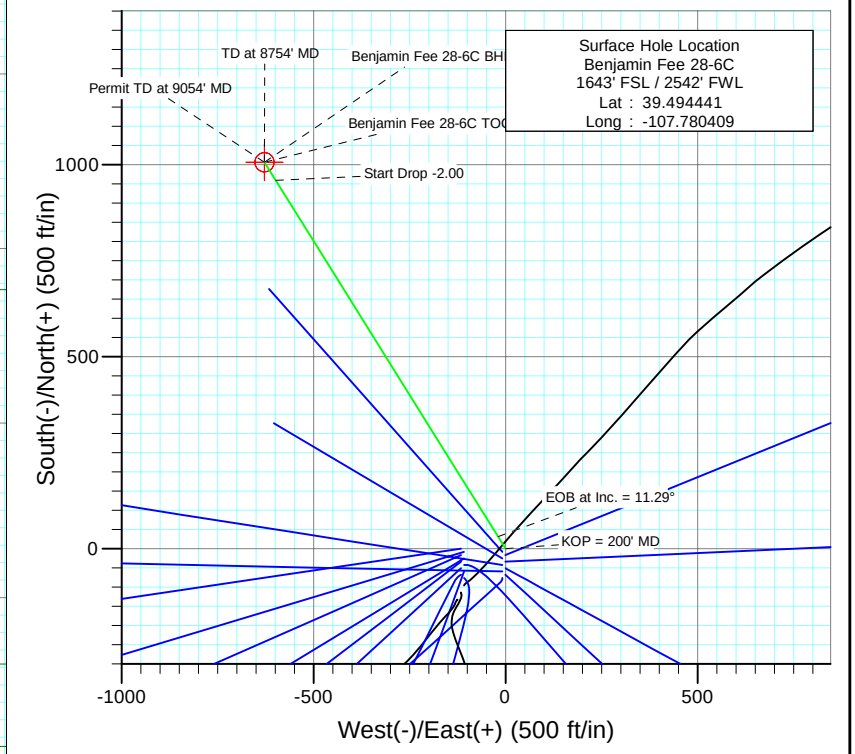
Project: Mamm Creek
Site: K28NW Pad
Well: Benjamin Fee 28-6C
Wellbore: DD
Design: Plan #2

CATHEDRAL

SECTION DETAILS

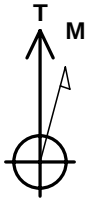
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	576.2	11.29	328.05	573.8	31.3	-19.5	3.00	328.05	36.9	
4	6164.8	11.29	328.05	6054.3	959.4	-598.4	0.00	0.00	1130.7	
5	6729.2	0.00	0.00	6615.0	1006.4	-627.7	2.00	180.00	1186.1	Benjamin Fee 28-6C TOG
6	8754.2	0.00	0.00	8640.0	1006.4	-627.7	0.00	0.00	1186.1	Benjamin Fee 28-6C BHL
7	9054.2	0.00	0.00	8940.0	1006.4	-627.7	0.00	0.00	1186.1	





FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2236.0	2271.2	G Sand
4380.0	4457.5	Ohio Creek
4852.0	4938.8	Mesa Verde
5434.0	5532.3	Williams Fork
6615.0	6729.2	Top of Gas
7824.0	7938.2	Coal Ridge
8490.0	8604.2	Base Cameo A Coal
8585.0	8699.2	Rollins



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 28-6C
(2660 FSL - 1950 FWL) Job #10xxx: KR

WELL @ 5965.0ft (Original Well Elev)
North American Datum 1983
Well Benjamin Fee 28-6C, True North

Type	Target	Azimuth	Origin Type	N/S	E/W
	Benjamin Fee 28-6C BHL	328.05	Slot	0.0	0.0

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
		1006.4	-627.7	39.497204	
Benjamin Fee 28-6C BHL	8640.0	1006.4	-627.7	39.497204	-107.782633

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Project:	Mamm Creek	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site:	K28NW Pad	**North Reference:**	True
Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	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 28-6C

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,613,058.89 ft	**Latitude:**	39.494441
	+E/-W	0.0 ft	**Easting:**	2,356,525.55 ft	**Longitude:**	-107.780409
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	328.05

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	
576.2	11.29	328.05	573.8	31.3	-19.5	3.00	3.00	0.00	328.05	
6,164.8	11.29	328.05	6,054.3	959.4	-598.4	0.00	0.00	0.00	0.00	
6,729.2	0.00	0.00	6,615.0	1,006.4	-627.7	2.00	-2.00	0.00	180.00	Benjamin Fee 28-6C
8,754.2	0.00	0.00	8,640.0	1,006.4	-627.7	0.00	0.00	0.00	0.00	Benjamin Fee 28-6C
9,054.2	0.00	0.00	8,940.0	1,006.4	-627.7	0.00	0.00	0.00	0.00	

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Project:	Mamm Creek	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site:	K28NW Pad	**North Reference:**	True
Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	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	328.05	300.0	2.2	-1.4	2.6	3.00	3.00	
400.0	6.00	328.05	399.6	8.9	-5.5	10.5	3.00	3.00	
500.0	9.00	328.05	498.8	20.0	-12.4	23.5	3.00	3.00	
576.2	11.29	328.05	573.8	31.3	-19.5	36.9	3.00	3.00	EOB at Inc. = 11.29°
600.0	11.29	328.05	597.1	35.3	-22.0	41.6	0.00	0.00	
700.0	11.29	328.05	695.2	51.9	-32.4	61.2	0.00	0.00	
800.0	11.29	328.05	793.2	68.5	-42.7	80.7	0.00	0.00	
900.0	11.29	328.05	891.3	85.1	-53.1	100.3	0.00	0.00	
1,000.0	11.29	328.05	989.4	101.7	-63.4	119.9	0.00	0.00	
1,100.0	11.29	328.05	1,087.4	118.3	-73.8	139.4	0.00	0.00	
1,200.0	11.29	328.05	1,185.5	134.9	-84.2	159.0	0.00	0.00	
1,300.0	11.29	328.05	1,283.6	151.5	-94.5	178.6	0.00	0.00	
1,354.0	11.29	328.05	1,336.5	160.5	-100.1	189.2	0.00	0.00	Surface Casing
1,400.0	11.29	328.05	1,381.6	168.1	-104.9	198.2	0.00	0.00	
1,500.0	11.29	328.05	1,479.7	184.7	-115.2	217.7	0.00	0.00	
1,600.0	11.29	328.05	1,577.8	201.4	-125.6	237.3	0.00	0.00	
1,700.0	11.29	328.05	1,675.8	218.0	-135.9	256.9	0.00	0.00	
1,800.0	11.29	328.05	1,773.9	234.6	-146.3	276.4	0.00	0.00	
1,900.0	11.29	328.05	1,872.0	251.2	-156.7	296.0	0.00	0.00	
2,000.0	11.29	328.05	1,970.0	267.8	-167.0	315.6	0.00	0.00	
2,100.0	11.29	328.05	2,068.1	284.4	-177.4	335.2	0.00	0.00	
2,200.0	11.29	328.05	2,166.2	301.0	-187.7	354.7	0.00	0.00	
2,271.2	11.29	328.05	2,236.0	312.8	-195.1	368.7	0.00	0.00	G Sand
2,300.0	11.29	328.05	2,264.2	317.6	-198.1	374.3	0.00	0.00	
2,400.0	11.29	328.05	2,362.3	334.2	-208.4	393.9	0.00	0.00	
2,500.0	11.29	328.05	2,460.4	350.8	-218.8	413.4	0.00	0.00	
2,600.0	11.29	328.05	2,558.4	367.4	-229.2	433.0	0.00	0.00	
2,700.0	11.29	328.05	2,656.5	384.0	-239.5	452.6	0.00	0.00	
2,800.0	11.29	328.05	2,754.6	400.6	-249.9	472.2	0.00	0.00	
2,900.0	11.29	328.05	2,852.6	417.2	-260.2	491.7	0.00	0.00	
3,000.0	11.29	328.05	2,950.7	433.8	-270.6	511.3	0.00	0.00	
3,100.0	11.29	328.05	3,048.8	450.4	-280.9	530.9	0.00	0.00	
3,200.0	11.29	328.05	3,146.8	467.1	-291.3	550.5	0.00	0.00	
3,300.0	11.29	328.05	3,244.9	483.7	-301.7	570.0	0.00	0.00	
3,400.0	11.29	328.05	3,343.0	500.3	-312.0	589.6	0.00	0.00	
3,500.0	11.29	328.05	3,441.0	516.9	-322.4	609.2	0.00	0.00	
3,600.0	11.29	328.05	3,539.1	533.5	-332.7	628.7	0.00	0.00	
3,700.0	11.29	328.05	3,637.2	550.1	-343.1	648.3	0.00	0.00	
3,800.0	11.29	328.05	3,735.2	566.7	-353.4	667.9	0.00	0.00	
3,900.0	11.29	328.05	3,833.3	583.3	-363.8	687.5	0.00	0.00	
4,000.0	11.29	328.05	3,931.4	599.9	-374.2	707.0	0.00	0.00	
4,100.0	11.29	328.05	4,029.4	616.5	-384.5	726.6	0.00	0.00	
4,200.0	11.29	328.05	4,127.5	633.1	-394.9	746.2	0.00	0.00	
4,300.0	11.29	328.05	4,225.6	649.7	-405.2	765.7	0.00	0.00	
4,400.0	11.29	328.05	4,323.6	666.3	-415.6	785.3	0.00	0.00	
4,457.5	11.29	328.05	4,380.0	675.9	-421.5	796.6	0.00	0.00	Ohio Creek
4,500.0	11.29	328.05	4,421.7	682.9	-425.9	804.9	0.00	0.00	
4,600.0	11.29	328.05	4,519.8	699.5	-436.3	824.5	0.00	0.00	
4,700.0	11.29	328.05	4,617.8	716.1	-446.7	844.0	0.00	0.00	

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Project:	Mamm Creek	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site:	K28NW Pad	**North Reference:**	True
Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	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	11.29	328.05	4,715.9	732.8	-457.0	863.6	0.00	0.00	
4,900.0	11.29	328.05	4,814.0	749.4	-467.4	883.2	0.00	0.00	
4,938.8	11.29	328.05	4,852.0	755.8	-471.4	890.8	0.00	0.00	Mesa Verde
5,000.0	11.29	328.05	4,912.0	766.0	-477.7	902.7	0.00	0.00	
5,100.0	11.29	328.05	5,010.1	782.6	-488.1	922.3	0.00	0.00	
5,200.0	11.29	328.05	5,108.2	799.2	-498.4	941.9	0.00	0.00	
5,300.0	11.29	328.05	5,206.2	815.8	-508.8	961.5	0.00	0.00	
5,400.0	11.29	328.05	5,304.3	832.4	-519.2	981.0	0.00	0.00	
5,500.0	11.29	328.05	5,402.3	849.0	-529.5	1,000.6	0.00	0.00	
5,532.3	11.29	328.05	5,434.0	854.4	-532.9	1,006.9	0.00	0.00	Williams Fork
5,600.0	11.29	328.05	5,500.4	865.6	-539.9	1,020.2	0.00	0.00	
5,700.0	11.29	328.05	5,598.5	882.2	-550.2	1,039.7	0.00	0.00	
5,800.0	11.29	328.05	5,696.5	898.8	-560.6	1,059.3	0.00	0.00	
5,900.0	11.29	328.05	5,794.6	915.4	-571.0	1,078.9	0.00	0.00	
6,000.0	11.29	328.05	5,892.7	932.0	-581.3	1,098.5	0.00	0.00	
6,100.0	11.29	328.05	5,990.7	948.6	-591.7	1,118.0	0.00	0.00	
6,164.8	11.29	328.05	6,054.3	959.4	-598.4	1,130.7	0.00	0.00	Start Drop -2.00
6,200.0	10.58	328.05	6,088.9	965.1	-601.9	1,137.4	2.00	-2.00	
6,300.0	8.58	328.05	6,187.5	979.2	-610.7	1,154.0	2.00	-2.00	
6,400.0	6.58	328.05	6,286.6	990.4	-617.7	1,167.2	2.00	-2.00	
6,500.0	4.58	328.05	6,386.1	998.6	-622.9	1,177.0	2.00	-2.00	
6,600.0	2.58	328.05	6,485.9	1,003.9	-626.2	1,183.2	2.00	-2.00	
6,700.0	0.58	328.05	6,585.8	1,006.3	-627.6	1,186.0	2.00	-2.00	
6,729.2	0.00	0.00	6,615.0	1,006.4	-627.7	1,186.1	2.00	-2.00	EOD at Inc. = 0° - Top of Gas - Benjamin Fee 2
6,800.0	0.00	0.00	6,685.8	1,006.4	-627.7	1,186.1	0.00	0.00	
6,900.0	0.00	0.00	6,785.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,000.0	0.00	0.00	6,885.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,100.0	0.00	0.00	6,985.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,200.0	0.00	0.00	7,085.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,300.0	0.00	0.00	7,185.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,400.0	0.00	0.00	7,285.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,500.0	0.00	0.00	7,385.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,600.0	0.00	0.00	7,485.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,700.0	0.00	0.00	7,585.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,800.0	0.00	0.00	7,685.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,900.0	0.00	0.00	7,785.8	1,006.4	-627.7	1,186.1	0.00	0.00	
7,938.2	0.00	0.00	7,824.0	1,006.4	-627.7	1,186.1	0.00	0.00	Coal Ridge
8,000.0	0.00	0.00	7,885.8	1,006.4	-627.7	1,186.1	0.00	0.00	
8,100.0	0.00	0.00	7,985.8	1,006.4	-627.7	1,186.1	0.00	0.00	
8,200.0	0.00	0.00	8,085.8	1,006.4	-627.7	1,186.1	0.00	0.00	
8,300.0	0.00	0.00	8,185.8	1,006.4	-627.7	1,186.1	0.00	0.00	
8,400.0	0.00	0.00	8,285.8	1,006.4	-627.7	1,186.1	0.00	0.00	
8,500.0	0.00	0.00	8,385.8	1,006.4	-627.7	1,186.1	0.00	0.00	
8,600.0	0.00	0.00	8,485.8	1,006.4	-627.7	1,186.1	0.00	0.00	
8,604.2	0.00	0.00	8,490.0	1,006.4	-627.7	1,186.1	0.00	0.00	Base Cameo A Coal
8,699.2	0.00	0.00	8,585.0	1,006.4	-627.7	1,186.1	0.00	0.00	Rollins
8,700.0	0.00	0.00	8,585.8	1,006.4	-627.7	1,186.1	0.00	0.00	
8,754.2	0.00	0.00	8,640.0	1,006.4	-627.7	1,186.1	0.00	0.00	TD at 8754' MD - Benjamin Fee 28-6C BHL
8,800.0	0.00	0.00	8,685.8	1,006.4	-627.7	1,186.1	0.00	0.00	
8,900.0	0.00	0.00	8,785.8	1,006.4	-627.7	1,186.1	0.00	0.00	
9,000.0	0.00	0.00	8,885.8	1,006.4	-627.7	1,186.1	0.00	0.00	
9,054.2	0.00	0.00	8,940.0	1,006.4	-627.7	1,186.1	0.00	0.00	Permit TD at 9054' MD

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Project:	Mamm Creek	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site:	K28NW Pad	**North Reference:**	True
Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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 28-6C BH - plan hits target center - Circle (radius 25.0)	0.00	0.00	8,640.0	1,006.4	-627.7	1,614,080.74	2,355,923.31	39.497204	-107.782633
Benjamin Fee 28-6C TO - plan hits target center - Point	0.00	0.00	6,615.0	1,006.4	-627.7	1,614,080.74	2,355,923.31	39.497204	-107.782633

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,354.0	1,336.5	Surface Casing		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,271.2	2,236.0	G Sand			
4,457.5	4,380.0	Ohio Creek			
4,938.8	4,852.0	Mesa Verde			
5,532.3	5,434.0	Williams Fork			
6,729.2	6,615.0	Top of Gas			
7,938.2	7,824.0	Coal Ridge			
8,604.2	8,490.0	Base Cameo A Coal			
8,699.2	8,585.0	Rollins			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
200.0	200.0	0.0	0.0	KOP = 200' MD
576.2	573.8	31.3	-19.5	EOB at Inc. = 11.29°
6,164.8	6,054.3	959.4	-598.4	Start Drop -2.00
6,729.2	6,615.0	1,006.4	-627.7	EOD at Inc. = 0°
8,754.2	8,640.0	1,006.4	-627.7	TD at 8754' MD
9,054.2	8,940.0	1,006.4	-627.7	Permit TD at 9054' MD

EnCana Oil & Gas (USA) Inc

Mamm Creek
K28NW Pad
Benjamin Fee 28-6C
DD
Plan #2

Anticollision Report

23 November, 2010

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Reference	Plan #2

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	Systematic Ellipse
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,105.4ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 11/23/2010

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	9,054.1	Plan #2 (DD)	MWD	Geolink MWD

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
K28NW Pad						
Benjamin 28-11 Existing - Existing - Existing	0.0	0.0	162.6			
Benjamin 28-11 Existing - Existing - Existing	100.0	99.2	162.8	162.6	600.291	ES
Benjamin 28-11 Existing - Existing - Existing	1,600.0	1,559.6	367.7	361.4	57.918	SF
Benjamin Federal 28-12B2 - DD - Plan #2	200.0	200.0	43.0	42.4	69.265	CC, ES
Benjamin Federal 28-12B2 - DD - Plan #2	900.0	884.4	133.7	128.7	26.642	SF
Benjamin Federal 28-12C1 - DD - Plan #2	200.0	200.0	59.9	59.3	96.457	CC, ES
Benjamin Federal 28-12C1 - DD - Plan #2	1,900.0	1,856.3	345.8	334.0	29.337	SF
Benjamin Federal 28-12C2 - DD - Plan #2	200.0	200.0	116.0	115.4	186.673	CC, ES
Benjamin Federal 28-12C2 - DD - Plan #2	3,500.0	3,271.1	1,098.4	1,075.6	48.161	SF
Benjamin Federal 28-13B1 - DD - Plan #2	200.0	200.0	108.4	107.8	174.478	CC, ES
Benjamin Federal 28-13B1 - DD - Plan #2	900.0	838.7	209.7	205.6	52.009	SF
Benjamin Federal 28-13B2 - DD - Plan #2	200.0	200.0	117.2	116.6	188.611	CC, ES
Benjamin Federal 28-13B2 - DD - Plan #2	900.0	833.1	224.8	220.8	56.754	SF
Benjamin Federal 28-13C1 - DD - Plan #2	200.0	200.0	111.0	110.3	178.583	CC, ES
Benjamin Federal 28-13C1 - DD - Plan #2	800.0	747.0	195.7	192.4	58.215	SF
Benjamin Federal 28-13C2 - DD - Plan #2	200.0	200.0	120.8	120.2	194.472	CC, ES
Benjamin Federal 28-13C2 - DD - Plan #2	800.0	743.0	208.5	205.2	62.741	SF
Benjamin Federal 28-14B1 - DD - Plan #2	200.0	200.0	76.9	76.3	123.809	CC, ES
Benjamin Federal 28-14B1 - DD - Plan #2	4,500.0	4,364.9	1,104.6	1,084.0	53.727	SF
Benjamin Federal 28-14B2 - DD - Plan #2	200.0	200.0	134.3	133.7	216.185	CC, ES
Benjamin Federal 28-14B2 - DD - Plan #2	1,400.0	1,332.2	391.6	385.8	66.553	SF
Benjamin Federal 28-14C - DD - Plan #2	200.0	200.0	123.2	122.6	198.340	CC, ES
Benjamin Federal 28-14C - DD - Plan #2	700.0	658.6	192.1	189.3	69.588	SF
Benjamin Federal 28-16C - DD - Plan #2	200.0	200.0	67.7	67.1	109.037	CC, ES
Benjamin Federal 28-16C - DD - Plan #2	500.0	486.2	106.9	105.2	63.092	SF
Benjamin Federal 33-3B - DD - Plan #2	200.0	200.0	132.3	131.7	212.986	CC, ES
Benjamin Federal 33-3B - DD - Plan #2	700.0	661.9	189.9	187.2	69.165	SF
Benjamin Federal 33-4B - DD - Plan #2	200.0	200.0	126.7	126.1	203.918	CC, ES
Benjamin Federal 33-4B - DD - Plan #2	800.0	739.3	222.5	219.2	67.685	SF
Benjamin Fee 28-10D2 - DD - Plan #2	200.0	200.0	33.9	33.3	54.518	CC, ES
Benjamin Fee 28-10D2 - DD - Plan #2	400.0	398.5	45.2	43.8	33.114	SF
Benjamin Fee 28-11A - DD - Plan #2	200.0	200.0	26.8	26.2	43.097	CC, ES
Benjamin Fee 28-11A - DD - Plan #2	9,054.2	8,978.4	680.1	642.6	18.136	SF
Benjamin Fee 28-11B - DD - Plan #2	200.0	200.0	11.7	11.1	18.849	CC, ES
Benjamin Fee 28-11B - DD - Plan #2	600.0	600.0	19.0	16.4	7.319	SF
Benjamin Fee 28-15A - DD - Plan #2	200.0	200.0	51.0	50.4	82.071	CC, ES
Benjamin Fee 28-15A - DD - Plan #2	400.0	395.5	66.4	65.0	49.365	SF
Benjamin Fee 28-9B - DD - Plan #2	200.0	200.0	16.8	16.1	26.966	CC, ES
Benjamin Fee 28-9B - DD - Plan #2	300.0	300.2	18.4	17.4	18.777	SF
Benjamin Fee 33-1B - DD - Plan #2	609.7	612.8	108.4	106.0	44.961	CC, ES
Benjamin Fee 33-1B - DD - Plan #2	800.0	788.1	126.0	122.7	38.012	SF
GMR 28-7D Existing - DD - Schlumberger Surveys	835.0	852.9	106.6	103.0	29.637	CC, ES
GMR 28-7D Existing - DD - Schlumberger Surveys	1,200.0	1,205.9	139.5	133.0	21.673	SF
GMU 28-14D Existing - Schlumberger Surveys - Schlumb	215.0	215.3	182.7	182.0	267.583	CC, ES
GMU 28-14D Existing - Schlumberger Surveys - Schlumb	1,200.0	1,135.5	327.7	322.7	66.069	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-134.57	-114.1	-115.8	162.6				
100.0	100.0	99.2	99.2	0.1	0.1	-134.57	-114.3	-116.0	162.8	162.6	0.27	600.291	ES
200.0	200.0	199.1	199.0	0.3	0.3	-134.63	-114.8	-116.3	163.4	162.7	0.62	263.494	
300.0	300.0	299.0	299.0	0.5	0.5	-103.76	-115.6	-116.2	164.5	163.5	0.98	168.351	
400.0	399.6	398.7	398.7	0.7	0.7	-106.82	-117.1	-115.4	167.1	165.8	1.37	122.040	
500.0	498.8	495.5	495.5	1.0	0.8	-111.37	-119.3	-114.6	172.7	170.9	1.81	95.526	
600.0	597.1	592.1	592.0	1.3	1.0	-116.87	-122.1	-114.5	182.6	180.3	2.28	80.058	
700.0	695.2	687.6	687.4	1.7	1.2	-122.15	-125.4	-115.1	195.8	193.1	2.74	71.480	
800.0	793.2	784.3	784.1	2.1	1.4	-126.74	-129.3	-116.2	211.3	208.1	3.18	66.406	
900.0	891.3	880.7	880.4	2.5	1.5	-130.62	-133.5	-117.7	228.2	224.6	3.60	63.305	
1,000.0	989.4	977.4	976.9	2.8	1.7	-133.88	-137.9	-119.6	246.5	242.4	4.02	61.373	
1,100.0	1,087.4	1,074.5	1,073.9	3.2	1.9	-136.61	-142.5	-122.0	265.6	261.1	4.42	60.104	
1,200.0	1,185.5	1,172.2	1,171.4	3.6	2.1	-138.95	-147.0	-124.7	285.2	280.4	4.81	59.231	
1,300.0	1,283.6	1,269.3	1,268.4	4.0	2.3	-140.94	-151.5	-127.5	305.2	300.0	5.21	58.622	
1,400.0	1,381.6	1,366.4	1,365.4	4.4	2.5	-142.69	-156.1	-130.3	325.6	320.0	5.59	58.225	
1,500.0	1,479.7	1,463.2	1,462.0	4.7	2.7	-144.22	-160.8	-133.1	346.4	340.5	5.98	57.980	
1,600.0	1,577.8	1,559.6	1,558.3	5.1	2.9	-145.68	-165.7	-135.3	367.7	361.4	6.35	57.918	SF
1,700.0	1,675.8	1,656.9	1,655.5	5.5	3.1	-147.07	-170.9	-137.0	389.4	382.6	6.72	57.967	
1,800.0	1,773.9	1,754.7	1,753.1	5.9	3.3	-148.37	-175.9	-138.3	411.1	404.0	7.08	58.063	
1,900.0	1,872.0	1,851.9	1,850.1	6.3	3.4	-149.59	-180.8	-139.2	432.9	425.5	7.44	58.210	
2,000.0	1,970.0	1,948.7	1,946.8	6.7	3.6	-150.72	-185.8	-139.8	455.0	447.2	7.79	58.403	
2,100.0	2,068.1	2,045.8	2,043.8	7.0	3.8	-151.79	-190.8	-140.2	477.2	469.1	8.14	58.636	
2,200.0	2,166.2	2,143.0	2,140.9	7.4	4.0	-152.80	-195.7	-140.2	499.6	491.1	8.48	58.887	
2,300.0	2,264.2	2,240.2	2,237.9	7.8	4.2	-153.76	-200.7	-139.9	522.2	513.3	8.83	59.162	
2,400.0	2,362.3	2,337.7	2,335.3	8.2	4.4	-154.69	-205.5	-139.2	544.7	535.6	9.16	59.446	
2,500.0	2,460.4	2,435.4	2,432.9	8.6	4.6	-155.57	-210.2	-138.3	567.4	557.9	9.50	59.735	
2,600.0	2,558.4	2,534.1	2,531.5	9.0	4.8	-156.42	-214.7	-137.2	590.0	580.1	9.83	59.995	
2,700.0	2,656.5	2,631.1	2,628.3	9.4	4.9	-157.20	-219.0	-135.9	612.5	602.3	10.16	60.258	
2,800.0	2,754.6	2,727.4	2,724.6	9.7	5.1	-157.93	-223.3	-134.6	635.2	624.7	10.49	60.529	
2,900.0	2,852.6	2,823.8	2,820.8	10.1	5.3	-158.61	-227.7	-133.2	658.1	647.3	10.82	60.801	
3,000.0	2,950.7	2,919.7	2,916.7	10.5	5.5	-159.24	-232.3	-131.9	681.2	670.1	11.15	61.078	
3,100.0	3,048.8	3,015.6	3,012.5	10.9	5.7	-159.85	-236.9	-130.4	704.6	693.1	11.48	61.368	
3,200.0	3,146.8	3,112.2	3,108.9	11.3	5.9	-160.43	-241.6	-128.6	728.1	716.3	11.81	61.659	
3,300.0	3,244.9	3,208.0	3,204.6	11.7	6.0	-160.99	-246.4	-126.7	751.8	739.7	12.14	61.954	
3,400.0	3,343.0	3,305.0	3,301.4	12.0	6.2	-161.51	-251.3	-124.8	775.6	763.2	12.46	62.236	
3,500.0	3,441.0	3,401.2	3,397.4	12.4	6.4	-162.01	-256.1	-122.8	799.6	786.8	12.79	62.518	
3,600.0	3,539.1	3,497.7	3,493.8	12.8	6.6	-162.49	-261.0	-120.6	823.6	810.5	13.12	62.793	
3,700.0	3,637.2	3,593.0	3,589.0	13.2	6.8	-162.93	-266.0	-118.5	847.8	834.3	13.44	63.071	
3,800.0	3,735.2	3,689.1	3,684.9	13.6	7.0	-163.35	-271.1	-116.5	872.1	858.4	13.77	63.337	
3,900.0	3,833.3	3,785.1	3,780.8	14.0	7.2	-163.74	-276.4	-114.4	896.6	882.5	14.10	63.598	
4,000.0	3,931.4	3,882.3	3,877.8	14.4	7.4	-164.11	-281.7	-112.4	921.2	906.8	14.43	63.841	
4,100.0	4,029.4	3,978.4	3,973.7	14.7	7.6	-164.45	-287.0	-110.6	945.8	931.0	14.76	64.074	
4,200.0	4,127.5	4,075.9	4,071.0	15.1	7.8	-164.77	-292.4	-108.8	970.4	955.3	15.09	64.288	
4,300.0	4,225.6	4,175.7	4,170.7	15.5	7.9	-165.08	-297.8	-107.1	994.9	979.5	15.43	64.466	
4,400.0	4,323.6	4,277.4	4,272.2	15.9	8.1	-165.38	-303.0	-105.4	1,019.0	1,003.2	15.77	64.603	
4,500.0	4,421.7	4,382.9	4,377.7	16.3	8.3	-165.71	-307.4	-103.3	1,042.6	1,026.4	16.12	64.694	
4,600.0	4,519.8	4,483.1	4,477.7	16.7	8.5	-166.06	-310.8	-100.6	1,065.5	1,049.1	16.44	64.794	
4,700.0	4,617.8	4,580.8	4,575.3	17.1	8.7	-166.40	-313.9	-97.8	1,088.4	1,071.6	16.77	64.903	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
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	299.9	299.8	0.5	0.5	-135.99	-41.8	-10.8	45.1	44.1	0.98	45.863	
400.0	399.6	399.5	399.1	0.7	0.7	-133.21	-40.6	-18.5	51.2	49.8	1.40	36.554	
500.0	498.8	498.5	497.3	1.0	1.0	-129.80	-38.7	-31.2	61.5	59.6	1.92	32.052	
600.0	597.1	596.7	593.9	1.3	1.4	-126.54	-35.9	-48.7	76.1	73.6	2.57	29.675	
700.0	695.2	694.0	688.5	1.7	1.8	-122.26	-32.4	-71.0	93.0	89.7	3.32	28.041	
800.0	793.2	790.1	780.7	2.1	2.3	-116.93	-28.3	-97.5	111.9	107.8	4.15	26.994	
900.0	891.3	884.4	869.9	2.5	2.9	-111.32	-23.5	-128.1	133.7	128.7	5.02	26.642	SF
1,000.0	989.4	976.6	955.4	2.8	3.6	-105.91	-18.2	-162.1	158.9	153.0	5.88	27.010	
1,100.0	1,087.4	1,071.8	1,042.8	3.2	4.3	-101.25	-12.4	-199.2	186.6	179.8	6.72	27.745	
1,200.0	1,185.5	1,166.9	1,130.2	3.6	5.0	-97.78	-6.6	-236.4	215.1	207.5	7.53	28.545	
1,300.0	1,283.6	1,262.0	1,217.6	4.0	5.7	-95.13	-0.7	-273.6	244.1	235.8	8.32	29.326	
1,400.0	1,381.6	1,357.2	1,304.9	4.4	6.4	-93.04	5.1	-310.7	273.6	264.5	9.10	30.055	
1,500.0	1,479.7	1,452.3	1,392.3	4.7	7.1	-91.35	10.9	-347.9	303.3	293.4	9.87	30.726	
1,600.0	1,577.8	1,547.4	1,479.7	5.1	7.9	-89.96	16.7	-385.1	333.2	322.6	10.63	31.337	
1,700.0	1,675.8	1,642.6	1,567.1	5.5	8.6	-88.80	22.5	-422.2	363.3	351.9	11.39	31.893	
1,800.0	1,773.9	1,737.7	1,654.5	5.9	9.3	-87.82	28.3	-459.4	393.5	381.3	12.15	32.398	
1,900.0	1,872.0	1,832.9	1,741.8	6.3	10.0	-86.98	34.2	-496.6	423.7	410.9	12.90	32.858	
2,000.0	1,970.0	1,928.0	1,829.2	6.7	10.7	-86.25	40.0	-533.7	454.1	440.4	13.65	33.278	
2,100.0	2,068.1	2,023.1	1,916.6	7.0	11.5	-85.61	45.8	-570.9	484.5	470.1	14.39	33.662	
2,200.0	2,166.2	2,118.3	2,004.0	7.4	12.2	-85.05	51.6	-608.1	515.0	499.8	15.14	34.015	
2,300.0	2,264.2	2,213.4	2,091.4	7.8	12.9	-84.54	57.4	-645.2	545.4	529.6	15.88	34.339	
2,400.0	2,362.3	2,308.5	2,178.7	8.2	13.6	-84.10	63.2	-682.4	576.0	559.3	16.63	34.638	
2,500.0	2,460.4	2,403.7	2,266.1	8.6	14.3	-83.69	69.0	-719.6	606.5	589.2	17.37	34.915	
2,600.0	2,558.4	2,498.8	2,353.5	9.0	15.1	-83.33	74.9	-756.7	637.1	619.0	18.11	35.172	
2,700.0	2,656.5	2,593.9	2,440.9	9.4	15.8	-83.00	80.7	-793.9	667.7	648.9	18.86	35.410	
2,800.0	2,754.6	2,689.1	2,528.3	9.7	16.5	-82.70	86.5	-831.1	698.3	678.7	19.60	35.632	
2,900.0	2,852.6	2,784.2	2,615.7	10.1	17.2	-82.42	92.3	-868.2	729.0	708.6	20.34	35.840	
3,000.0	2,950.7	2,879.3	2,703.0	10.5	18.0	-82.17	98.1	-905.4	759.6	738.5	21.08	36.034	
3,100.0	3,048.8	2,974.5	2,790.4	10.9	18.7	-81.93	103.9	-942.6	790.3	768.5	21.82	36.216	
3,200.0	3,146.8	3,069.6	2,877.8	11.3	19.4	-81.71	109.7	-979.7	821.0	798.4	22.56	36.387	
3,300.0	3,244.9	3,164.7	2,965.2	11.7	20.1	-81.51	115.6	-1,016.9	851.6	828.3	23.30	36.548	
3,400.0	3,343.0	3,259.9	3,052.6	12.0	20.9	-81.33	121.4	-1,054.0	882.3	858.3	24.04	36.700	
3,500.0	3,441.0	3,355.0	3,139.9	12.4	21.6	-81.15	127.2	-1,091.2	913.0	888.3	24.78	36.843	
3,600.0	3,539.1	3,450.1	3,227.3	12.8	22.3	-80.99	133.0	-1,128.4	943.7	918.2	25.52	36.979	
3,700.0	3,637.2	3,545.3	3,314.7	13.2	23.0	-80.83	138.8	-1,165.5	974.5	948.2	26.26	37.107	
3,800.0	3,735.2	3,640.4	3,402.1	13.6	23.7	-80.69	144.6	-1,202.7	1,005.2	978.2	27.00	37.229	
3,900.0	3,833.3	3,735.5	3,489.5	14.0	24.5	-80.55	150.4	-1,239.9	1,035.9	1,008.2	27.74	37.345	
4,000.0	3,931.4	3,830.7	3,576.8	14.4	25.2	-80.43	156.3	-1,277.0	1,066.6	1,038.2	28.48	37.455	
4,100.0	4,029.4	3,925.8	3,664.2	14.7	25.9	-80.31	162.1	-1,314.2	1,097.4	1,068.2	29.22	37.559	

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-172.15	-59.4	-8.2	59.9				
100.0	100.0	100.0	100.0	0.1	0.1	-172.15	-59.4	-8.2	59.9	59.7	0.27	220.120	
200.0	200.0	200.0	200.0	0.3	0.3	-172.15	-59.4	-8.2	59.9	59.3	0.62	96.457	CC, ES
300.0	300.0	300.0	300.0	0.5	0.5	-141.71	-59.4	-8.2	62.0	61.0	0.97	63.677	
400.0	399.6	399.6	399.6	0.7	0.7	-145.68	-59.4	-8.2	68.3	67.0	1.33	51.195	
500.0	498.8	498.8	498.8	1.0	0.8	-150.82	-59.4	-8.2	79.4	77.7	1.70	46.713	
600.0	597.1	597.1	597.1	1.3	1.0	-155.94	-59.4	-8.2	95.7	93.6	2.06	46.409	
700.0	695.2	695.2	695.2	1.7	1.2	-159.95	-59.4	-8.2	113.9	111.4	2.42	47.141	
800.0	793.2	794.1	794.1	2.1	1.3	-162.66	-59.4	-8.7	132.3	129.5	2.77	47.818	
900.0	891.3	894.7	894.5	2.5	1.5	-163.08	-59.3	-13.7	149.7	146.5	3.14	47.627	
1,000.0	989.4	995.6	994.9	2.8	1.7	-161.64	-59.0	-23.9	165.6	162.1	3.57	46.404	
1,100.0	1,087.4	1,096.3	1,094.4	3.2	2.0	-158.80	-58.7	-39.5	180.5	176.4	4.08	44.228	
1,200.0	1,185.5	1,196.2	1,192.2	3.6	2.3	-154.89	-58.3	-60.1	194.8	190.1	4.71	41.349	
1,300.0	1,283.6	1,294.9	1,287.5	4.0	2.7	-150.17	-57.8	-85.4	209.5	204.0	5.49	38.187	
1,400.0	1,381.6	1,391.8	1,379.8	4.4	3.3	-144.90	-57.1	-115.0	225.5	219.1	6.41	35.200	
1,500.0	1,479.7	1,486.4	1,468.3	4.7	3.8	-139.32	-56.4	-148.4	243.7	236.3	7.45	32.733	
1,600.0	1,577.8	1,578.5	1,552.7	5.1	4.5	-133.69	-55.7	-185.0	265.0	256.4	8.57	30.925	
1,700.0	1,675.8	1,670.4	1,635.6	5.5	5.2	-128.21	-54.9	-224.8	289.7	280.0	9.69	29.907	
1,800.0	1,773.9	1,763.4	1,719.3	5.9	6.0	-123.47	-54.0	-265.3	316.9	306.1	10.76	29.437	
1,900.0	1,872.0	1,856.3	1,803.0	6.3	6.7	-119.46	-53.2	-305.7	345.8	334.0	11.79	29.337	SF
2,000.0	1,970.0	1,949.3	1,886.7	6.7	7.5	-116.05	-52.3	-346.1	376.2	363.4	12.76	29.471	
2,100.0	2,068.1	2,042.2	1,970.4	7.0	8.2	-113.13	-51.5	-386.6	407.6	393.9	13.70	29.750	
2,200.0	2,166.2	2,135.2	2,054.1	7.4	9.0	-110.63	-50.6	-427.0	439.9	425.2	14.60	30.118	
2,300.0	2,264.2	2,228.1	2,137.8	7.8	9.8	-108.45	-49.8	-467.5	472.8	457.3	15.48	30.539	
2,400.0	2,362.3	2,321.1	2,221.4	8.2	10.5	-106.56	-49.0	-507.9	506.3	489.9	16.34	30.990	
2,500.0	2,460.4	2,414.0	2,305.1	8.6	11.3	-104.90	-48.1	-548.3	540.2	523.0	17.18	31.453	
2,600.0	2,558.4	2,507.0	2,388.8	9.0	12.1	-103.42	-47.3	-588.8	574.5	556.5	18.00	31.919	
2,700.0	2,656.5	2,599.9	2,472.5	9.4	12.9	-102.12	-46.4	-629.2	609.1	590.3	18.81	32.380	
2,800.0	2,754.6	2,692.9	2,556.2	9.7	13.6	-100.95	-45.6	-669.7	644.0	624.3	19.61	32.833	
2,900.0	2,852.6	2,785.8	2,639.9	10.1	14.4	-99.90	-44.7	-710.1	679.0	658.6	20.41	33.274	
3,000.0	2,950.7	2,878.8	2,723.6	10.5	15.2	-98.95	-43.9	-750.6	714.3	693.1	21.19	33.701	
3,100.0	3,048.8	2,971.7	2,807.3	10.9	16.0	-98.09	-43.0	-791.0	749.7	727.7	21.98	34.114	
3,200.0	3,146.8	3,064.7	2,890.9	11.3	16.8	-97.31	-42.2	-831.4	785.2	762.5	22.75	34.511	
3,300.0	3,244.9	3,157.6	2,974.6	11.7	17.5	-96.59	-41.4	-871.9	820.9	797.4	23.52	34.894	
3,400.0	3,343.0	3,250.6	3,058.3	12.0	18.3	-95.94	-40.5	-912.3	856.6	832.3	24.29	35.262	
3,500.0	3,441.0	3,343.5	3,142.0	12.4	19.1	-95.33	-39.7	-952.8	892.5	867.4	25.06	35.616	
3,600.0	3,539.1	3,436.5	3,225.7	12.8	19.9	-94.77	-38.8	-993.2	928.4	902.6	25.82	35.955	
3,700.0	3,637.2	3,529.4	3,309.4	13.2	20.7	-94.26	-38.0	-1,033.6	964.4	937.9	26.58	36.281	
3,800.0	3,735.2	3,622.4	3,393.1	13.6	21.5	-93.78	-37.1	-1,074.1	1,000.5	973.2	27.34	36.594	
3,900.0	3,833.3	3,715.3	3,476.7	14.0	22.2	-93.33	-36.3	-1,114.5	1,036.6	1,008.5	28.10	36.895	
4,000.0	3,931.4	3,808.3	3,560.4	14.4	23.0	-92.92	-35.5	-1,155.0	1,072.8	1,044.0	28.85	37.183	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance 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	-116.0	116.0				
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-116.0	116.0	115.7	0.27	425.998	
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-116.0	116.0	115.4	0.62	186.673	CC, ES
300.0	300.0	294.3	294.2	0.5	0.5	-59.21	-0.3	-118.3	117.1	116.1	0.97	121.105	
400.0	399.6	388.1	387.8	0.7	0.7	-62.54	-1.4	-125.1	120.6	119.3	1.34	89.882	
500.0	498.8	481.1	480.1	1.0	0.9	-67.56	-3.0	-136.4	127.5	125.7	1.78	71.713	
600.0	597.1	572.9	570.5	1.3	1.3	-73.57	-5.3	-151.9	138.6	136.4	2.29	60.530	
700.0	695.2	663.5	659.0	1.7	1.7	-78.95	-8.2	-171.4	155.7	152.8	2.85	54.699	
800.0	793.2	752.7	745.0	2.1	2.1	-82.82	-11.6	-194.6	178.3	174.9	3.44	51.906	
900.0	891.3	840.2	828.3	2.5	2.6	-85.38	-15.5	-221.1	205.8	201.7	4.05	50.783	
1,000.0	989.4	925.6	908.3	2.8	3.2	-86.96	-19.9	-250.7	237.6	232.9	4.69	50.690	
1,100.0	1,087.4	1,018.6	994.5	3.2	3.8	-88.06	-25.0	-285.2	271.7	266.4	5.36	50.688	
1,200.0	1,185.5	1,112.5	1,081.5	3.6	4.5	-88.93	-30.1	-319.9	306.0	300.0	6.05	50.566	
1,300.0	1,283.6	1,206.3	1,168.6	4.0	5.2	-89.62	-35.3	-354.7	340.3	333.6	6.75	50.400	
1,400.0	1,381.6	1,300.2	1,255.6	4.4	5.8	-90.18	-40.4	-389.5	374.7	367.2	7.46	50.221	
1,500.0	1,479.7	1,394.0	1,342.6	4.7	6.5	-90.65	-45.5	-424.3	409.1	400.9	8.17	50.041	
1,600.0	1,577.8	1,487.9	1,429.6	5.1	7.2	-91.05	-50.7	-459.1	443.5	434.6	8.89	49.869	
1,700.0	1,675.8	1,581.7	1,516.6	5.5	7.8	-91.39	-55.8	-493.8	477.9	468.3	9.61	49.707	
1,800.0	1,773.9	1,675.6	1,603.7	5.9	8.5	-91.68	-60.9	-528.6	512.3	502.0	10.34	49.556	
1,900.0	1,872.0	1,769.4	1,690.7	6.3	9.2	-91.94	-66.1	-563.4	546.8	535.7	11.06	49.416	
2,000.0	1,970.0	1,863.3	1,777.7	6.7	9.9	-92.17	-71.2	-598.2	581.2	569.4	11.79	49.287	
2,100.0	2,068.1	1,957.2	1,864.7	7.0	10.5	-92.37	-76.3	-633.0	615.7	603.1	12.52	49.168	
2,200.0	2,166.2	2,051.0	1,951.7	7.4	11.2	-92.55	-81.5	-667.7	650.1	636.9	13.25	49.058	
2,300.0	2,264.2	2,144.9	2,038.8	7.8	11.9	-92.71	-86.6	-702.5	684.6	670.6	13.98	48.956	
2,400.0	2,362.3	2,238.7	2,125.8	8.2	12.5	-92.86	-91.7	-737.3	719.1	704.4	14.72	48.862	
2,500.0	2,460.4	2,332.6	2,212.8	8.6	13.2	-92.99	-96.9	-772.1	753.5	738.1	15.45	48.774	
2,600.0	2,558.4	2,426.4	2,299.8	9.0	13.9	-93.11	-102.0	-806.9	788.0	771.8	16.18	48.693	
2,700.0	2,656.5	2,520.3	2,386.9	9.4	14.6	-93.23	-107.2	-841.6	822.5	805.6	16.92	48.617	
2,800.0	2,754.6	2,614.1	2,473.9	9.7	15.2	-93.33	-112.3	-876.4	857.0	839.3	17.65	48.547	
2,900.0	2,852.6	2,708.0	2,560.9	10.1	15.9	-93.42	-117.4	-911.2	891.5	873.1	18.39	48.481	
3,000.0	2,950.7	2,801.9	2,647.9	10.5	16.6	-93.51	-122.6	-946.0	926.0	906.8	19.12	48.419	
3,100.0	3,048.8	2,895.7	2,734.9	10.9	17.3	-93.59	-127.7	-980.8	960.5	940.6	19.86	48.361	
3,200.0	3,146.8	2,989.6	2,822.0	11.3	17.9	-93.67	-132.8	-1,015.5	995.0	974.4	20.60	48.307	
3,300.0	3,244.9	3,083.4	2,909.0	11.7	18.6	-93.74	-138.0	-1,050.3	1,029.4	1,008.1	21.33	48.255	
3,400.0	3,343.0	3,177.3	2,996.0	12.0	19.3	-93.80	-143.1	-1,085.1	1,063.9	1,041.9	22.07	48.207	
3,500.0	3,441.0	3,271.1	3,083.0	12.4	19.9	-93.86	-148.2	-1,119.9	1,098.4	1,075.6	22.81	48.161	SF

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-94.43	-8.4	-108.1	108.4				
100.0	100.0	100.0	100.0	0.1	0.1	-94.43	-8.4	-108.1	108.4	108.1	0.27	398.167	
200.0	200.0	200.0	200.0	0.3	0.3	-94.43	-8.4	-108.1	108.4	107.8	0.62	174.478	CC, ES
300.0	300.0	294.7	294.6	0.5	0.5	-63.86	-9.1	-110.3	109.7	108.7	0.97	113.262	
400.0	399.6	388.8	388.5	0.7	0.7	-67.75	-11.1	-117.0	113.8	112.4	1.35	84.435	
500.0	498.8	481.9	480.9	1.0	0.9	-73.49	-14.4	-128.0	121.8	120.0	1.79	68.097	
600.0	597.1	573.5	571.1	1.3	1.3	-80.15	-18.9	-142.9	135.0	132.7	2.30	58.594	
700.0	695.2	663.6	659.1	1.7	1.7	-85.95	-24.5	-161.7	154.5	151.6	2.85	54.137	
800.0	793.2	752.1	744.5	2.1	2.1	-90.03	-31.2	-184.0	179.6	176.2	3.43	52.371	
900.0	891.3	838.7	826.9	2.5	2.6	-92.71	-38.8	-209.4	209.7	205.6	4.03	52.009	SF
1,000.0	989.4	923.1	906.0	2.8	3.2	-94.36	-47.3	-237.6	243.9	239.3	4.65	52.470	
1,100.0	1,087.4	1,011.1	987.2	3.2	3.8	-95.40	-57.0	-270.0	281.6	276.3	5.30	53.169	
1,200.0	1,185.5	1,103.5	1,072.4	3.6	4.5	-96.21	-67.4	-304.3	319.6	313.7	5.97	53.559	
1,300.0	1,283.6	1,195.9	1,157.6	4.0	5.2	-96.84	-77.7	-338.6	357.7	351.1	6.65	53.795	
1,400.0	1,381.6	1,288.3	1,242.8	4.4	5.8	-97.36	-88.0	-372.8	395.8	388.5	7.34	53.939	
1,500.0	1,479.7	1,380.7	1,327.9	4.7	6.5	-97.78	-98.3	-407.1	434.0	426.0	8.03	54.025	
1,600.0	1,577.8	1,473.1	1,413.1	5.1	7.2	-98.14	-108.6	-441.4	472.2	463.4	8.73	54.074	
1,700.0	1,675.8	1,565.5	1,498.3	5.5	7.9	-98.44	-118.9	-475.7	510.3	500.9	9.43	54.098	
1,800.0	1,773.9	1,657.9	1,583.5	5.9	8.5	-98.70	-129.2	-510.0	548.5	538.4	10.14	54.107	
1,900.0	1,872.0	1,750.3	1,668.6	6.3	9.2	-98.92	-139.5	-544.3	586.7	575.9	10.84	54.105	
2,000.0	1,970.0	1,842.7	1,753.8	6.7	9.9	-99.12	-149.8	-578.6	624.9	613.4	11.55	54.097	
2,100.0	2,068.1	1,935.1	1,839.0	7.0	10.6	-99.30	-160.1	-612.9	663.1	650.9	12.26	54.083	
2,200.0	2,166.2	2,027.5	1,924.2	7.4	11.3	-99.46	-170.4	-647.2	701.4	688.4	12.97	54.067	
2,300.0	2,264.2	2,119.9	2,009.3	7.8	12.0	-99.60	-180.7	-681.4	739.6	725.9	13.68	54.049	
2,400.0	2,362.3	2,212.3	2,094.5	8.2	12.6	-99.72	-191.1	-715.7	777.8	763.4	14.40	54.029	
2,500.0	2,460.4	2,304.7	2,179.7	8.6	13.3	-99.84	-201.4	-750.0	816.0	800.9	15.11	54.009	
2,600.0	2,558.4	2,397.0	2,264.9	9.0	14.0	-99.94	-211.7	-784.3	854.2	838.4	15.82	53.990	
2,700.0	2,656.5	2,489.4	2,350.0	9.4	14.7	-100.04	-222.0	-818.6	892.5	875.9	16.54	53.970	
2,800.0	2,754.6	2,581.8	2,435.2	9.7	15.4	-100.13	-232.3	-852.9	930.7	913.5	17.25	53.950	
2,900.0	2,852.6	2,674.2	2,520.4	10.1	16.1	-100.21	-242.6	-887.2	968.9	951.0	17.97	53.931	
3,000.0	2,950.7	2,766.6	2,605.5	10.5	16.8	-100.28	-252.9	-921.5	1,007.2	988.5	18.68	53.912	
3,100.0	3,048.8	2,859.0	2,690.7	10.9	17.4	-100.35	-263.2	-955.8	1,045.4	1,026.0	19.40	53.894	
3,200.0	3,146.8	2,951.4	2,775.9	11.3	18.1	-100.41	-273.5	-990.0	1,083.7	1,063.5	20.11	53.877	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-98.22	-16.8	-116.0	117.2				
100.0	100.0	100.0	100.0	0.1	0.1	-98.22	-16.8	-116.0	117.2	116.9	0.27	430.420	
200.0	200.0	200.0	200.0	0.3	0.3	-98.22	-16.8	-116.0	117.2	116.6	0.62	188.611	CC, ES
300.0	300.0	294.3	294.3	0.5	0.5	-67.62	-17.7	-118.1	118.6	117.6	0.97	122.443	
400.0	399.6	388.0	387.7	0.7	0.7	-71.46	-20.5	-124.4	123.1	121.7	1.35	91.177	
500.0	498.8	480.5	479.5	1.0	0.9	-77.09	-25.1	-134.8	131.8	130.0	1.79	73.510	
600.0	597.1	571.3	569.0	1.3	1.3	-83.62	-31.3	-148.9	146.0	143.7	2.30	63.404	
700.0	695.2	660.4	656.0	1.7	1.6	-89.42	-39.0	-166.5	166.7	163.9	2.84	58.779	
800.0	793.2	747.8	740.3	2.1	2.1	-93.63	-48.2	-187.4	193.3	189.9	3.39	57.025	
900.0	891.3	833.1	821.6	2.5	2.6	-96.51	-58.7	-211.1	224.8	220.8	3.96	56.754	SF
1,000.0	989.4	916.1	899.4	2.8	3.1	-98.40	-70.3	-237.4	260.6	256.1	4.55	57.306	
1,100.0	1,087.4	997.1	974.1	3.2	3.7	-99.58	-82.9	-266.0	300.4	295.3	5.15	58.337	
1,200.0	1,185.5	1,087.9	1,057.2	3.6	4.4	-100.50	-97.7	-299.5	341.9	336.2	5.79	59.038	
1,300.0	1,283.6	1,178.8	1,140.4	4.0	5.1	-101.21	-112.4	-333.1	383.5	377.1	6.44	59.511	
1,400.0	1,381.6	1,269.6	1,223.5	4.4	5.8	-101.79	-127.2	-366.6	425.2	418.0	7.11	59.835	
1,500.0	1,479.7	1,360.5	1,306.6	4.7	6.5	-102.27	-142.0	-400.1	466.8	459.0	7.77	60.060	
1,600.0	1,577.8	1,451.3	1,389.8	5.1	7.2	-102.66	-156.8	-433.7	508.5	500.0	8.44	60.218	
1,700.0	1,675.8	1,542.2	1,472.9	5.5	7.9	-103.00	-171.6	-467.2	550.2	541.0	9.12	60.330	
1,800.0	1,773.9	1,633.0	1,556.0	5.9	8.6	-103.29	-186.4	-500.8	591.9	582.1	9.80	60.410	
1,900.0	1,872.0	1,723.9	1,639.1	6.3	9.3	-103.54	-201.2	-534.3	633.6	623.1	10.48	60.466	
2,000.0	1,970.0	1,814.7	1,722.3	6.7	10.0	-103.76	-215.9	-567.8	675.3	664.1	11.16	60.506	
2,100.0	2,068.1	1,905.6	1,805.4	7.0	10.6	-103.96	-230.7	-601.4	717.0	705.2	11.85	60.534	
2,200.0	2,166.2	1,996.4	1,888.5	7.4	11.3	-104.13	-245.5	-634.9	758.8	746.2	12.53	60.552	
2,300.0	2,264.2	2,087.3	1,971.7	7.8	12.0	-104.28	-260.3	-668.5	800.5	787.3	13.22	60.563	
2,400.0	2,362.3	2,178.1	2,054.8	8.2	12.7	-104.42	-275.1	-702.0	842.3	828.4	13.91	60.570	
2,500.0	2,460.4	2,269.0	2,137.9	8.6	13.4	-104.55	-289.9	-735.5	884.0	869.4	14.59	60.573	
2,600.0	2,558.4	2,359.8	2,221.0	9.0	14.1	-104.67	-304.7	-769.1	925.8	910.5	15.28	60.573	
2,700.0	2,656.5	2,450.7	2,304.2	9.4	14.8	-104.77	-319.4	-802.6	967.5	951.5	15.97	60.570	
2,800.0	2,754.6	2,541.5	2,387.3	9.7	15.5	-104.87	-334.2	-836.2	1,009.3	992.6	16.66	60.567	
2,900.0	2,852.6	2,632.4	2,470.4	10.1	16.2	-104.96	-349.0	-869.7	1,051.0	1,033.7	17.35	60.562	
3,000.0	2,950.7	2,723.2	2,553.6	10.5	16.9	-105.04	-363.8	-903.3	1,092.8	1,074.8	18.05	60.556	

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-103.28	-25.5	-108.0	111.0				
100.0	100.0	100.0	100.0	0.1	0.1	-103.28	-25.5	-108.0	111.0	110.7	0.27	407.536	
200.0	200.0	200.0	200.0	0.3	0.3	-103.28	-25.5	-108.0	111.0	110.3	0.62	178.583	CC, ES
300.0	300.0	294.6	294.6	0.5	0.5	-72.85	-26.7	-110.0	112.5	111.6	0.97	116.060	
400.0	399.6	388.6	388.3	0.7	0.7	-77.10	-30.3	-115.9	117.7	116.4	1.35	86.916	
500.0	498.8	481.1	480.1	1.0	0.9	-83.19	-36.2	-125.6	127.7	125.9	1.80	70.955	
600.0	597.1	571.6	569.3	1.3	1.3	-90.04	-44.2	-138.8	144.0	141.7	2.31	62.415	
700.0	695.2	660.3	655.8	1.7	1.6	-95.99	-54.2	-155.2	167.0	164.1	2.83	59.039	
800.0	793.2	747.0	739.5	2.1	2.1	-100.21	-65.9	-174.5	195.7	192.4	3.36	58.215	SF
900.0	891.3	831.4	820.0	2.5	2.6	-103.07	-79.2	-196.4	229.4	225.5	3.91	58.652	
1,000.0	989.4	913.4	896.9	2.8	3.1	-104.93	-93.9	-220.5	267.4	262.9	4.47	59.755	
1,100.0	1,087.4	992.7	970.2	3.2	3.7	-106.10	-109.7	-246.6	309.2	304.2	5.05	61.221	
1,200.0	1,185.5	1,071.8	1,041.9	3.6	4.3	-106.81	-127.0	-275.0	354.5	348.9	5.64	62.866	
1,300.0	1,283.6	1,160.3	1,121.6	4.0	5.0	-107.36	-146.9	-307.8	401.0	394.7	6.26	64.008	
1,400.0	1,381.6	1,248.8	1,201.4	4.4	5.7	-107.81	-166.8	-340.5	447.4	440.5	6.90	64.882	
1,500.0	1,479.7	1,337.3	1,281.2	4.7	6.5	-108.16	-186.7	-373.2	493.9	486.4	7.53	65.559	
1,600.0	1,577.8	1,425.8	1,361.0	5.1	7.2	-108.46	-206.6	-406.0	540.4	532.2	8.18	66.094	
1,700.0	1,675.8	1,514.3	1,440.8	5.5	7.9	-108.71	-226.5	-438.7	586.9	578.1	8.82	66.526	
1,800.0	1,773.9	1,602.8	1,520.6	5.9	8.6	-108.93	-246.4	-471.5	633.4	624.0	9.47	66.878	
1,900.0	1,872.0	1,691.3	1,600.3	6.3	9.4	-109.11	-266.3	-504.2	679.9	669.8	10.12	67.170	
2,000.0	1,970.0	1,779.8	1,680.1	6.7	10.1	-109.27	-286.2	-536.9	726.5	715.7	10.78	67.415	
2,100.0	2,068.1	1,868.3	1,759.9	7.0	10.8	-109.41	-306.1	-569.7	773.0	761.6	11.43	67.624	
2,200.0	2,166.2	1,956.8	1,839.7	7.4	11.5	-109.54	-326.0	-602.4	819.5	807.4	12.09	67.803	
2,300.0	2,264.2	2,045.3	1,919.5	7.8	12.3	-109.65	-345.9	-635.1	866.1	853.3	12.74	67.958	
2,400.0	2,362.3	2,133.8	1,999.2	8.2	13.0	-109.75	-365.8	-667.9	912.6	899.2	13.40	68.093	
2,500.0	2,460.4	2,222.3	2,079.0	8.6	13.7	-109.84	-385.7	-700.6	959.1	945.1	14.06	68.212	
2,600.0	2,558.4	2,310.8	2,158.8	9.0	14.4	-109.92	-405.5	-733.3	1,005.7	990.9	14.72	68.317	
2,700.0	2,656.5	2,399.3	2,238.6	9.4	15.2	-110.00	-425.4	-766.1	1,052.2	1,036.8	15.38	68.411	
2,800.0	2,754.6	2,487.8	2,318.4	9.7	15.9	-110.07	-445.3	-798.8	1,098.8	1,082.7	16.04	68.495	

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-106.28	-33.9	-116.0	120.8				
100.0	100.0	100.0	100.0	0.1	0.1	-106.28	-33.9	-116.0	120.8	120.6	0.27	443.794	
200.0	200.0	200.0	200.0	0.3	0.3	-106.28	-33.9	-116.0	120.8	120.2	0.62	194.472	CC, ES
300.0	300.0	294.3	294.3	0.5	0.5	-75.78	-35.3	-117.8	122.5	121.5	0.97	126.336	
400.0	399.6	387.8	387.5	0.7	0.7	-79.85	-39.5	-123.3	127.9	126.5	1.36	94.366	
500.0	498.8	479.8	478.8	1.0	0.9	-85.71	-46.3	-132.3	138.3	136.5	1.80	76.779	
600.0	597.1	569.6	567.3	1.3	1.3	-92.34	-55.5	-144.3	155.2	152.9	2.30	67.378	
700.0	695.2	657.3	652.9	1.7	1.6	-98.24	-66.9	-159.3	178.9	176.1	2.81	63.648	
800.0	793.2	743.0	735.7	2.1	2.0	-102.56	-80.3	-177.0	208.5	205.2	3.32	62.741	SF
900.0	891.3	826.3	815.1	2.5	2.5	-105.60	-95.6	-196.9	243.2	239.3	3.85	63.242	
1,000.0	989.4	907.1	891.0	2.8	3.1	-107.68	-112.3	-218.9	282.2	277.8	4.38	64.478	
1,100.0	1,087.4	985.2	963.2	3.2	3.6	-109.07	-130.3	-242.6	325.2	320.2	4.92	66.071	
1,200.0	1,185.5	1,060.4	1,031.6	3.6	4.2	-109.97	-149.4	-267.6	371.7	366.2	5.47	67.891	
1,300.0	1,283.6	1,136.1	1,099.1	4.0	4.9	-110.56	-170.1	-294.8	421.4	415.4	6.04	69.824	
1,400.0	1,381.6	1,222.2	1,175.5	4.4	5.6	-111.05	-194.2	-326.4	472.1	465.5	6.63	71.178	
1,500.0	1,479.7	1,308.4	1,251.9	4.7	6.4	-111.45	-218.3	-358.1	522.8	515.6	7.24	72.247	
1,600.0	1,577.8	1,394.5	1,328.3	5.1	7.1	-111.78	-242.4	-389.7	573.5	565.7	7.85	73.099	
1,700.0	1,675.8	1,480.6	1,404.7	5.5	7.8	-112.05	-266.5	-421.4	624.3	615.8	8.46	73.791	
1,800.0	1,773.9	1,566.8	1,481.1	5.9	8.6	-112.28	-290.6	-453.0	675.0	666.0	9.08	74.363	
1,900.0	1,872.0	1,652.9	1,557.5	6.3	9.3	-112.48	-314.8	-484.7	725.8	716.1	9.70	74.843	
2,000.0	1,970.0	1,739.0	1,633.9	6.7	10.1	-112.66	-338.9	-516.3	776.6	766.2	10.32	75.249	
2,100.0	2,068.1	1,825.2	1,710.3	7.0	10.8	-112.81	-363.0	-548.0	827.3	816.4	10.94	75.597	
2,200.0	2,166.2	1,911.3	1,786.7	7.4	11.6	-112.94	-387.1	-579.6	878.1	866.5	11.57	75.897	
2,300.0	2,264.2	1,997.4	1,863.1	7.8	12.3	-113.06	-411.2	-611.2	928.9	916.7	12.20	76.158	
2,400.0	2,362.3	2,083.6	1,939.5	8.2	13.1	-113.17	-435.3	-642.9	979.6	966.8	12.82	76.387	
2,500.0	2,460.4	2,169.7	2,015.9	8.6	13.8	-113.27	-459.4	-674.5	1,030.4	1,017.0	13.45	76.590	
2,600.0	2,558.4	2,255.8	2,092.2	9.0	14.6	-113.36	-483.5	-706.2	1,081.2	1,067.1	14.08	76.770	

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-173.89	-76.5	-8.2	76.9				
100.0	100.0	100.0	100.0	0.1	0.1	-173.89	-76.5	-8.2	76.9	76.7	0.27	282.538	
200.0	200.0	200.0	200.0	0.3	0.3	-173.89	-76.5	-8.2	76.9	76.3	0.62	123.809	CC, ES
300.0	300.0	295.1	295.0	0.5	0.5	-142.96	-80.0	-8.5	82.7	81.7	0.96	85.725	
400.0	399.6	392.4	392.0	0.7	0.7	-143.42	-86.5	-12.5	95.9	94.6	1.33	71.980	
500.0	498.8	489.5	488.4	1.0	0.9	-143.06	-94.3	-20.8	115.0	113.3	1.74	66.114	
600.0	597.1	586.7	584.8	1.3	1.2	-143.73	-102.4	-29.7	138.4	136.3	2.18	63.445	
700.0	695.2	683.5	681.0	1.7	1.4	-144.76	-110.5	-38.6	163.1	160.5	2.64	61.799	
800.0	793.2	780.4	777.1	2.1	1.7	-145.51	-118.5	-47.5	187.8	184.7	3.10	60.541	
900.0	891.3	877.3	873.2	2.5	2.0	-146.10	-126.6	-56.4	212.5	208.9	3.57	59.563	
1,000.0	989.4	974.2	969.4	2.8	2.2	-146.55	-134.7	-65.3	237.2	233.2	4.04	58.788	
1,100.0	1,087.4	1,071.0	1,065.5	3.2	2.5	-146.93	-142.7	-74.2	262.0	257.5	4.50	58.160	
1,200.0	1,185.5	1,167.9	1,161.6	3.6	2.8	-147.24	-150.8	-83.1	286.7	281.8	4.97	57.642	
1,300.0	1,283.6	1,264.8	1,257.8	4.0	3.0	-147.50	-158.9	-92.0	311.5	306.0	5.44	57.209	
1,400.0	1,381.6	1,361.7	1,353.9	4.4	3.3	-147.72	-166.9	-100.9	336.3	330.3	5.92	56.841	
1,500.0	1,479.7	1,458.6	1,450.0	4.7	3.6	-147.91	-175.0	-109.8	361.0	354.6	6.39	56.525	
1,600.0	1,577.8	1,555.4	1,546.1	5.1	3.8	-148.08	-183.1	-118.8	385.8	378.9	6.86	56.251	
1,700.0	1,675.8	1,652.3	1,642.3	5.5	4.1	-148.22	-191.1	-127.7	410.6	403.2	7.33	56.011	
1,800.0	1,773.9	1,749.2	1,738.4	5.9	4.4	-148.35	-199.2	-136.6	435.3	427.5	7.80	55.799	
1,900.0	1,872.0	1,846.1	1,834.5	6.3	4.7	-148.47	-207.3	-145.5	460.1	451.8	8.27	55.611	
2,000.0	1,970.0	1,942.9	1,930.7	6.7	4.9	-148.57	-215.4	-154.4	484.9	476.2	8.75	55.443	
2,100.0	2,068.1	2,039.8	2,026.8	7.0	5.2	-148.66	-223.4	-163.3	509.7	500.5	9.22	55.291	
2,200.0	2,166.2	2,136.7	2,122.9	7.4	5.5	-148.75	-231.5	-172.2	534.5	524.8	9.69	55.154	
2,300.0	2,264.2	2,233.6	2,219.0	7.8	5.7	-148.83	-239.6	-181.1	559.2	549.1	10.16	55.030	
2,400.0	2,362.3	2,330.5	2,315.2	8.2	6.0	-148.90	-247.6	-190.0	584.0	573.4	10.63	54.916	
2,500.0	2,460.4	2,427.3	2,411.3	8.6	6.3	-148.96	-255.7	-198.9	608.8	597.7	11.11	54.812	
2,600.0	2,558.4	2,524.2	2,507.4	9.0	6.5	-149.02	-263.8	-207.8	633.6	622.0	11.58	54.716	
2,700.0	2,656.5	2,621.1	2,603.6	9.4	6.8	-149.08	-271.8	-216.7	658.4	646.3	12.05	54.628	
2,800.0	2,754.6	2,718.0	2,699.7	9.7	7.1	-149.13	-279.9	-225.6	683.2	670.6	12.52	54.546	
2,900.0	2,852.6	2,814.8	2,795.8	10.1	7.4	-149.18	-288.0	-234.5	708.0	695.0	13.00	54.470	
3,000.0	2,950.7	2,911.7	2,892.0	10.5	7.6	-149.22	-296.0	-243.5	732.7	719.3	13.47	54.400	
3,100.0	3,048.8	3,008.6	2,988.1	10.9	7.9	-149.27	-304.1	-252.4	757.5	743.6	13.94	54.334	
3,200.0	3,146.8	3,105.5	3,084.2	11.3	8.2	-149.30	-312.2	-261.3	782.3	767.9	14.41	54.272	
3,300.0	3,244.9	3,202.4	3,180.3	11.7	8.4	-149.34	-320.2	-270.2	807.1	792.2	14.89	54.214	
3,400.0	3,343.0	3,299.2	3,276.5	12.0	8.7	-149.38	-328.3	-279.1	831.9	816.5	15.36	54.160	
3,500.0	3,441.0	3,396.1	3,372.6	12.4	9.0	-149.41	-336.4	-288.0	856.7	840.8	15.83	54.109	
3,600.0	3,539.1	3,493.0	3,468.7	12.8	9.2	-149.44	-344.4	-296.9	881.5	865.2	16.31	54.061	
3,700.0	3,637.2	3,589.9	3,564.9	13.2	9.5	-149.47	-352.5	-305.8	906.3	889.5	16.78	54.016	
3,800.0	3,735.2	3,686.8	3,661.0	13.6	9.8	-149.50	-360.6	-314.7	931.0	913.8	17.25	53.973	
3,900.0	3,833.3	3,783.6	3,757.1	14.0	10.1	-149.52	-368.6	-323.6	955.8	938.1	17.72	53.932	
4,000.0	3,931.4	3,880.5	3,853.2	14.4	10.3	-149.55	-376.7	-332.5	980.6	962.4	18.20	53.893	
4,100.0	4,029.4	3,977.4	3,949.4	14.7	10.6	-149.57	-384.8	-341.4	1,005.4	986.7	18.67	53.857	
4,200.0	4,127.5	4,074.3	4,045.5	15.1	10.9	-149.59	-392.9	-350.3	1,030.2	1,011.1	19.14	53.822	
4,300.0	4,225.6	4,171.1	4,141.6	15.5	11.1	-149.61	-400.9	-359.2	1,055.0	1,035.4	19.61	53.789	
4,400.0	4,323.6	4,268.0	4,237.8	15.9	11.4	-149.63	-409.0	-368.2	1,079.8	1,059.7	20.09	53.757	
4,500.0	4,421.7	4,364.9	4,333.9	16.3	11.7	-149.65	-417.1	-377.1	1,104.6	1,084.0	20.56	53.727	SF

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-120.29	-67.7	-116.0	134.3				
100.0	100.0	100.0	100.0	0.1	0.1	-120.29	-67.7	-116.0	134.3	134.1	0.27	493.346	
200.0	200.0	200.0	200.0	0.3	0.3	-120.29	-67.7	-116.0	134.3	133.7	0.62	216.185	CC, ES
300.0	300.0	294.2	294.2	0.5	0.5	-89.84	-69.8	-117.0	136.4	135.4	0.97	140.422	
400.0	399.6	387.4	387.1	0.7	0.7	-94.01	-75.9	-120.1	143.1	141.8	1.36	105.016	
500.0	498.8	478.4	477.4	1.0	0.9	-99.88	-85.8	-125.1	156.0	154.2	1.81	86.160	
600.0	597.1	571.3	569.1	1.3	1.2	-106.71	-99.1	-131.8	175.8	173.5	2.30	76.539	
700.0	695.2	666.4	663.0	1.7	1.5	-113.05	-112.9	-138.8	198.8	196.0	2.77	71.812	
800.0	793.2	761.5	756.8	2.1	1.8	-118.08	-126.7	-145.8	223.7	220.5	3.23	69.350	
900.0	891.3	856.6	850.7	2.5	2.1	-122.11	-140.5	-152.8	250.0	246.3	3.68	68.024	
1,000.0	989.4	951.7	944.5	2.8	2.4	-125.38	-154.3	-159.8	277.2	273.1	4.12	67.297	
1,100.0	1,087.4	1,046.9	1,038.3	3.2	2.8	-128.06	-168.1	-166.8	305.2	300.6	4.56	66.899	
1,200.0	1,185.5	1,142.0	1,132.2	3.6	3.1	-130.30	-182.0	-173.8	333.6	328.6	5.00	66.688	
1,300.0	1,283.6	1,237.1	1,226.0	4.0	3.4	-132.19	-195.8	-180.8	362.5	357.0	5.44	66.588	
1,400.0	1,381.6	1,332.2	1,319.8	4.4	3.7	-133.80	-209.6	-187.8	391.6	385.8	5.88	66.553	SF
1,500.0	1,479.7	1,427.3	1,413.7	4.7	4.0	-135.20	-223.4	-194.8	421.1	414.7	6.33	66.559	
1,600.0	1,577.8	1,522.4	1,507.5	5.1	4.3	-136.41	-237.2	-201.8	450.7	443.9	6.77	66.589	
1,700.0	1,675.8	1,617.5	1,601.3	5.5	4.7	-137.47	-251.1	-208.7	480.4	473.2	7.21	66.634	
1,800.0	1,773.9	1,712.6	1,695.2	5.9	5.0	-138.41	-264.9	-215.7	510.4	502.7	7.65	66.688	
1,900.0	1,872.0	1,807.7	1,789.0	6.3	5.3	-139.24	-278.7	-222.7	540.4	532.3	8.10	66.747	
2,000.0	1,970.0	1,902.8	1,882.9	6.7	5.6	-139.99	-292.5	-229.7	570.5	562.0	8.54	66.808	
2,100.0	2,068.1	1,997.9	1,976.7	7.0	5.9	-140.66	-306.3	-236.7	600.7	591.7	8.98	66.870	
2,200.0	2,166.2	2,093.0	2,070.5	7.4	6.2	-141.27	-320.2	-243.7	630.9	621.5	9.43	66.931	
2,300.0	2,264.2	2,188.1	2,164.4	7.8	6.6	-141.82	-334.0	-250.7	661.3	651.4	9.87	66.992	
2,400.0	2,362.3	2,283.2	2,258.2	8.2	6.9	-142.33	-347.8	-257.7	691.6	681.3	10.32	67.050	
2,500.0	2,460.4	2,378.3	2,352.0	8.6	7.2	-142.79	-361.6	-264.7	722.1	711.3	10.76	67.107	
2,600.0	2,558.4	2,473.4	2,445.9	9.0	7.5	-143.21	-375.4	-271.7	752.5	741.3	11.20	67.162	
2,700.0	2,656.5	2,568.5	2,539.7	9.4	7.8	-143.61	-389.2	-278.7	783.0	771.4	11.65	67.214	
2,800.0	2,754.6	2,663.7	2,633.5	9.7	8.1	-143.97	-403.1	-285.7	813.5	801.4	12.09	67.265	
2,900.0	2,852.6	2,758.8	2,727.4	10.1	8.5	-144.31	-416.9	-292.7	844.1	831.5	12.54	67.313	
3,000.0	2,950.7	2,853.9	2,821.2	10.5	8.8	-144.62	-430.7	-299.6	874.7	861.7	12.99	67.360	
3,100.0	3,048.8	2,949.0	2,915.1	10.9	9.1	-144.91	-444.5	-306.6	905.3	891.8	13.43	67.404	
3,200.0	3,146.8	3,044.1	3,008.9	11.3	9.4	-145.18	-458.3	-313.6	935.9	922.0	13.88	67.447	
3,300.0	3,244.9	3,139.2	3,102.7	11.7	9.7	-145.44	-472.2	-320.6	966.5	952.2	14.32	67.488	
3,400.0	3,343.0	3,234.3	3,196.6	12.0	10.0	-145.68	-486.0	-327.6	997.2	982.4	14.77	67.527	
3,500.0	3,441.0	3,329.4	3,290.4	12.4	10.4	-145.90	-499.8	-334.6	1,027.8	1,012.6	15.21	67.564	
3,600.0	3,539.1	3,424.5	3,384.2	12.8	10.7	-146.12	-513.6	-341.6	1,058.5	1,042.9	15.66	67.600	
3,700.0	3,637.2	3,519.6	3,478.1	13.2	11.0	-146.32	-527.4	-348.6	1,089.2	1,073.1	16.10	67.635	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-118.80	-59.4	-108.0	123.2				
100.0	100.0	100.0	100.0	0.1	0.1	-118.80	-59.4	-108.0	123.2	123.0	0.27	452.621	
200.0	200.0	200.0	200.0	0.3	0.3	-118.80	-59.4	-108.0	123.2	122.6	0.62	198.340	CC, ES
300.0	300.0	295.2	295.1	0.5	0.5	-88.65	-61.6	-108.8	125.0	124.1	0.97	128.397	
400.0	399.6	389.2	388.8	0.7	0.7	-93.63	-68.2	-111.2	131.2	129.8	1.37	95.668	
500.0	498.8	480.8	479.8	1.0	0.9	-100.61	-78.7	-115.1	143.6	141.8	1.83	78.642	
600.0	597.1	569.3	567.0	1.3	1.2	-108.21	-92.8	-120.2	164.2	161.9	2.31	71.118	
700.0	695.2	658.6	654.3	1.7	1.6	-115.22	-110.4	-126.6	192.1	189.3	2.76	69.588	SF
800.0	793.2	751.8	745.3	2.1	2.0	-120.74	-129.3	-133.5	222.8	219.7	3.19	69.759	
900.0	891.3	844.9	836.3	2.5	2.3	-124.94	-148.2	-140.4	255.1	251.5	3.62	70.509	
1,000.0	989.4	938.1	927.2	2.8	2.7	-128.20	-167.0	-147.3	288.3	284.3	4.04	71.406	
1,100.0	1,087.4	1,031.3	1,018.2	3.2	3.1	-130.80	-185.9	-154.2	322.2	317.8	4.46	72.284	
1,200.0	1,185.5	1,124.4	1,109.1	3.6	3.5	-132.91	-204.8	-161.1	356.6	351.7	4.88	73.083	
1,300.0	1,283.6	1,217.6	1,200.1	4.0	3.9	-134.65	-223.7	-168.0	391.4	386.1	5.30	73.789	
1,400.0	1,381.6	1,310.7	1,291.1	4.4	4.2	-136.11	-242.6	-174.9	426.4	420.6	5.73	74.406	
1,500.0	1,479.7	1,403.9	1,382.0	4.7	4.6	-137.35	-261.5	-181.8	461.6	455.4	6.16	74.945	
1,600.0	1,577.8	1,497.0	1,473.0	5.1	5.0	-138.41	-280.3	-188.7	497.0	490.4	6.59	75.414	
1,700.0	1,675.8	1,590.2	1,564.0	5.5	5.4	-139.33	-299.2	-195.6	532.5	525.5	7.02	75.826	
1,800.0	1,773.9	1,683.3	1,654.9	5.9	5.8	-140.14	-318.1	-202.5	568.1	560.7	7.46	76.189	
1,900.0	1,872.0	1,776.5	1,745.9	6.3	6.2	-140.86	-337.0	-209.4	603.8	595.9	7.89	76.510	
2,000.0	1,970.0	1,869.7	1,836.8	6.7	6.6	-141.49	-355.9	-216.3	639.6	631.3	8.33	76.795	
2,100.0	2,068.1	1,962.8	1,927.8	7.0	6.9	-142.06	-374.8	-223.2	675.5	666.7	8.77	77.051	
2,200.0	2,166.2	2,056.0	2,018.8	7.4	7.3	-142.57	-393.6	-230.1	711.4	702.2	9.20	77.280	
2,300.0	2,264.2	2,149.1	2,109.7	7.8	7.7	-143.03	-412.5	-237.0	747.3	737.7	9.64	77.488	
2,400.0	2,362.3	2,242.3	2,200.7	8.2	8.1	-143.45	-431.4	-243.9	783.3	773.2	10.08	77.676	
2,500.0	2,460.4	2,335.4	2,291.6	8.6	8.5	-143.83	-450.3	-250.8	819.3	808.8	10.52	77.847	
2,600.0	2,558.4	2,428.6	2,382.6	9.0	8.9	-144.18	-469.2	-257.7	855.3	844.4	10.97	78.003	
2,700.0	2,656.5	2,521.8	2,473.6	9.4	9.3	-144.50	-488.1	-264.5	891.4	880.0	11.41	78.147	
2,800.0	2,754.6	2,614.9	2,564.5	9.7	9.6	-144.80	-506.9	-271.4	927.5	915.6	11.85	78.279	
2,900.0	2,852.6	2,708.1	2,655.5	10.1	10.0	-145.07	-525.8	-278.3	963.6	951.3	12.29	78.401	
3,000.0	2,950.7	2,801.2	2,746.5	10.5	10.4	-145.33	-544.7	-285.2	999.7	987.0	12.73	78.514	
3,100.0	3,048.8	2,894.4	2,837.4	10.9	10.8	-145.57	-563.6	-292.1	1,035.9	1,022.7	13.18	78.618	
3,200.0	3,146.8	2,987.5	2,928.4	11.3	11.2	-145.79	-582.5	-299.0	1,072.0	1,058.4	13.62	78.716	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-67.7	0.0	67.7				
100.0	100.0	100.0	100.0	0.1	0.1	-180.00	-67.7	0.0	67.7	67.5	0.27	248.827	
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-67.7	0.0	67.7	67.1	0.62	109.037	CC, ES
300.0	300.0	297.4	297.4	0.5	0.5	-150.53	-69.4	1.8	71.8	70.8	0.97	73.880	
400.0	399.6	393.3	393.0	0.7	0.7	-156.43	-74.4	7.2	84.5	83.1	1.33	63.330	
500.0	498.8	486.2	485.2	1.0	1.0	-162.92	-82.3	15.7	106.9	105.2	1.69	63.092	SF
600.0	597.1	575.1	572.7	1.3	1.3	-168.38	-92.6	27.0	139.2	137.1	2.04	68.270	
700.0	695.2	660.3	655.8	1.7	1.6	-172.48	-105.2	40.6	177.6	175.2	2.37	74.787	
800.0	793.2	742.1	734.8	2.1	2.0	-175.45	-119.6	56.2	220.4	217.7	2.70	81.559	
900.0	891.3	820.5	809.6	2.5	2.5	-177.69	-135.5	73.4	267.1	264.1	3.02	88.424	
1,000.0	989.4	896.2	880.9	2.8	3.0	-179.44	-152.9	92.2	317.5	314.2	3.33	95.223	
1,100.0	1,087.4	981.3	960.5	3.2	3.5	179.03	-173.2	114.3	369.5	365.8	3.66	100.849	
1,200.0	1,185.5	1,066.3	1,040.0	3.6	4.1	177.88	-193.6	136.4	421.6	417.6	3.99	105.620	
1,300.0	1,283.6	1,151.4	1,119.6	4.0	4.6	176.99	-214.0	158.5	473.9	469.5	4.32	109.699	
1,400.0	1,381.6	1,236.5	1,199.2	4.4	5.2	176.27	-234.4	180.6	526.2	521.5	4.65	113.221	
1,500.0	1,479.7	1,321.5	1,278.8	4.7	5.7	175.68	-254.8	202.7	578.5	573.5	4.97	116.289	
1,600.0	1,577.8	1,406.6	1,358.3	5.1	6.3	175.18	-275.2	224.8	630.9	625.6	5.30	118.984	
1,700.0	1,675.8	1,491.7	1,437.9	5.5	6.8	174.77	-295.6	246.9	683.3	677.7	5.63	121.366	
1,800.0	1,773.9	1,576.7	1,517.5	5.9	7.4	174.41	-316.0	269.0	735.8	729.8	5.96	123.487	
1,900.0	1,872.0	1,661.8	1,597.0	6.3	7.9	174.10	-336.4	291.1	788.2	781.9	6.29	125.389	
2,000.0	1,970.0	1,746.8	1,676.6	6.7	8.5	173.83	-356.8	313.2	840.7	834.1	6.61	127.105	
2,100.0	2,068.1	1,831.9	1,756.2	7.0	9.1	173.59	-377.2	335.3	893.2	886.2	6.94	128.660	
2,200.0	2,166.2	1,917.0	1,835.7	7.4	9.6	173.37	-397.6	357.4	945.7	938.4	7.27	130.075	
2,300.0	2,264.2	2,002.0	1,915.3	7.8	10.2	173.18	-418.0	379.5	998.2	990.6	7.60	131.368	
2,400.0	2,362.3	2,087.1	1,994.9	8.2	10.7	173.01	-438.3	401.6	1,050.7	1,042.8	7.93	132.554	
2,500.0	2,460.4	2,172.2	2,074.5	8.6	11.3	172.86	-458.7	423.7	1,103.2	1,095.0	8.25	133.645	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-125.31	-76.5	-108.0	132.3				
100.0	100.0	100.0	100.0	0.1	0.1	-125.31	-76.5	-108.0	132.3	132.1	0.27	486.046	
200.0	200.0	200.0	200.0	0.3	0.3	-125.31	-76.5	-108.0	132.3	131.7	0.62	212.986	CC, ES
300.0	300.0	297.2	297.2	0.5	0.5	-94.99	-78.1	-108.0	133.5	132.6	0.98	136.754	
400.0	399.6	393.6	393.4	0.7	0.7	-99.62	-83.0	-108.0	137.8	136.4	1.37	100.235	
500.0	498.8	486.9	486.4	1.0	0.9	-106.34	-90.9	-108.1	147.0	145.1	1.83	80.525	
600.0	597.1	575.7	574.5	1.3	1.1	-113.78	-102.3	-109.3	164.5	162.2	2.30	71.408	
700.0	695.2	661.9	659.4	1.7	1.4	-120.50	-116.9	-111.7	189.9	187.2	2.75	69.165	SF
800.0	793.2	745.6	741.1	2.1	1.8	-125.64	-134.6	-115.2	221.9	218.7	3.16	70.287	
900.0	891.3	826.6	819.4	2.5	2.1	-129.45	-155.0	-119.7	259.3	255.8	3.55	73.134	
1,000.0	989.4	904.7	894.0	2.8	2.6	-132.24	-177.6	-125.1	301.5	297.6	3.92	76.847	
1,100.0	1,087.4	987.9	972.5	3.2	3.0	-134.48	-204.1	-131.6	347.2	342.9	4.30	80.655	
1,200.0	1,185.5	1,075.9	1,055.5	3.6	3.6	-136.31	-232.4	-138.7	393.5	388.8	4.69	83.852	
1,300.0	1,283.6	1,163.9	1,138.5	4.0	4.1	-137.76	-260.8	-145.7	440.1	435.0	5.09	86.540	
1,400.0	1,381.6	1,251.9	1,221.5	4.4	4.6	-138.93	-289.1	-152.7	486.8	481.3	5.48	88.801	
1,500.0	1,479.7	1,339.9	1,304.5	4.7	5.1	-139.90	-317.4	-159.7	533.7	527.8	5.88	90.709	
1,600.0	1,577.8	1,427.8	1,387.5	5.1	5.6	-140.71	-345.8	-166.8	580.7	574.4	6.29	92.328	
1,700.0	1,675.8	1,515.8	1,470.5	5.5	6.2	-141.41	-374.1	-173.8	627.8	621.1	6.70	93.710	
1,800.0	1,773.9	1,603.8	1,553.6	5.9	6.7	-142.00	-402.4	-180.8	674.9	667.8	7.11	94.898	
1,900.0	1,872.0	1,691.8	1,636.6	6.3	7.2	-142.52	-430.8	-187.8	722.1	714.6	7.53	95.924	
2,000.0	1,970.0	1,779.8	1,719.6	6.7	7.8	-142.98	-459.1	-194.9	769.3	761.4	7.95	96.817	
2,100.0	2,068.1	1,867.8	1,802.6	7.0	8.3	-143.38	-487.4	-201.9	816.6	808.2	8.37	97.600	
2,200.0	2,166.2	1,955.8	1,885.6	7.4	8.8	-143.74	-515.8	-208.9	863.9	855.1	8.79	98.290	
2,300.0	2,264.2	2,043.8	1,968.6	7.8	9.4	-144.06	-544.1	-215.9	911.2	902.0	9.21	98.901	
2,400.0	2,362.3	2,131.8	2,051.6	8.2	9.9	-144.35	-572.4	-223.0	958.5	948.9	9.64	99.445	
2,500.0	2,460.4	2,219.8	2,134.6	8.6	10.4	-144.61	-600.8	-230.0	1,005.9	995.8	10.07	99.932	
2,600.0	2,558.4	2,307.8	2,217.6	9.0	10.9	-144.85	-629.1	-237.0	1,053.2	1,042.7	10.49	100.369	
2,700.0	2,656.5	2,395.8	2,300.6	9.4	11.5	-145.07	-657.4	-244.0	1,100.6	1,089.7	10.92	100.765	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-113.73	-51.0	-116.0	126.7				
100.0	100.0	100.0	100.0	0.1	0.1	-113.73	-51.0	-116.0	126.7	126.4	0.27	465.351	
200.0	200.0	200.0	200.0	0.3	0.3	-113.73	-51.0	-116.0	126.7	126.1	0.62	203.918	CC, ES
300.0	300.0	294.0	293.9	0.5	0.5	-83.14	-52.6	-117.7	128.7	127.7	0.97	132.799	
400.0	399.6	387.1	386.8	0.7	0.7	-86.90	-57.2	-122.7	135.1	133.8	1.35	99.742	
500.0	498.8	478.5	477.5	1.0	0.9	-92.25	-64.7	-130.9	147.2	145.4	1.80	81.785	
600.0	597.1	567.6	565.4	1.3	1.2	-98.25	-74.9	-142.0	165.9	163.6	2.29	72.336	
700.0	695.2	654.6	650.3	1.7	1.6	-103.61	-87.4	-155.6	191.4	188.6	2.79	68.607	
800.0	793.2	739.3	732.2	2.1	2.0	-107.55	-102.2	-171.7	222.5	219.2	3.29	67.685	SF
900.0	891.3	821.7	810.7	2.5	2.5	-110.33	-118.9	-189.8	258.4	254.7	3.79	68.185	
1,000.0	989.4	900.0	884.4	2.8	3.0	-112.24	-136.8	-209.4	298.7	294.4	4.30	69.489	
1,100.0	1,087.4	978.4	957.0	3.2	3.6	-113.57	-156.9	-231.1	342.8	338.0	4.83	71.039	
1,200.0	1,185.5	1,052.5	1,024.5	3.6	4.2	-114.44	-177.7	-253.8	390.4	385.0	5.35	72.900	
1,300.0	1,283.6	1,123.8	1,088.2	4.0	4.8	-114.99	-199.3	-277.3	441.2	435.3	5.89	74.946	
1,400.0	1,381.6	1,200.6	1,155.5	4.4	5.5	-115.35	-224.4	-304.6	495.1	488.6	6.44	76.854	
1,500.0	1,479.7	1,273.1	1,218.2	4.7	6.1	-115.57	-248.9	-331.3	550.6	543.6	6.99	78.747	
1,600.0	1,577.8	1,356.2	1,290.2	5.1	6.9	-115.78	-277.1	-361.9	606.2	598.6	7.57	80.038	
1,700.0	1,675.8	1,439.3	1,362.1	5.5	7.7	-115.96	-305.2	-392.5	661.8	653.6	8.16	81.108	
1,800.0	1,773.9	1,522.4	1,434.1	5.9	8.5	-116.11	-333.3	-423.1	717.4	708.6	8.75	82.005	
1,900.0	1,872.0	1,605.5	1,506.1	6.3	9.3	-116.24	-361.5	-453.7	773.0	763.6	9.34	82.765	
2,000.0	1,970.0	1,688.6	1,578.0	6.7	10.0	-116.35	-389.6	-484.3	828.6	818.6	9.93	83.415	
2,100.0	2,068.1	1,771.7	1,650.0	7.0	10.8	-116.44	-417.8	-514.9	884.2	873.6	10.53	83.977	
2,200.0	2,166.2	1,854.8	1,721.9	7.4	11.6	-116.53	-445.9	-545.5	939.8	928.7	11.13	84.468	
2,300.0	2,264.2	1,937.9	1,793.9	7.8	12.4	-116.60	-474.0	-576.1	995.4	983.7	11.72	84.901	
2,400.0	2,362.3	2,021.0	1,865.8	8.2	13.2	-116.67	-502.2	-606.7	1,051.0	1,038.7	12.32	85.285	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
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	299.9	299.8	0.5	0.5	-154.35	-33.8	2.6	36.2	35.2	0.98	36.951	
400.0	399.6	398.5	398.2	0.7	0.7	-168.48	-33.4	10.3	45.2	43.8	1.36	33.114	SF
500.0	498.8	494.8	493.7	1.0	1.0	178.27	-32.8	22.7	63.6	61.9	1.77	36.030	
600.0	597.1	588.5	585.9	1.3	1.3	169.24	-32.1	39.2	91.7	89.6	2.18	42.109	
700.0	695.2	683.0	678.6	1.7	1.6	164.15	-31.3	57.1	123.3	120.7	2.62	47.147	
800.0	793.2	777.4	771.3	2.1	2.0	161.14	-30.5	75.1	155.4	152.3	3.06	50.758	
900.0	891.3	871.9	864.1	2.5	2.3	159.16	-29.7	93.0	187.7	184.2	3.51	53.426	
1,000.0	989.4	966.3	956.8	2.8	2.7	157.76	-28.9	110.9	220.2	216.3	3.97	55.464	
1,100.0	1,087.4	1,060.8	1,049.6	3.2	3.0	156.72	-28.1	128.8	252.8	248.4	4.43	57.064	
1,200.0	1,185.5	1,155.3	1,142.3	3.6	3.4	155.92	-27.2	146.8	285.5	280.6	4.89	58.351	
1,300.0	1,283.6	1,249.7	1,235.0	4.0	3.8	155.28	-26.4	164.7	318.1	312.8	5.36	59.408	
1,400.0	1,381.6	1,344.2	1,327.8	4.4	4.1	154.76	-25.6	182.6	350.8	345.0	5.82	60.290	
1,500.0	1,479.7	1,438.6	1,420.5	4.7	4.5	154.33	-24.8	200.5	383.6	377.3	6.28	61.037	
1,600.0	1,577.8	1,533.1	1,513.2	5.1	4.8	153.96	-24.0	218.5	416.3	409.6	6.75	61.677	
1,700.0	1,675.8	1,627.5	1,606.0	5.5	5.2	153.65	-23.2	236.4	449.1	441.8	7.22	62.232	
1,800.0	1,773.9	1,722.0	1,698.7	5.9	5.5	153.39	-22.4	254.3	481.8	474.1	7.68	62.717	
1,900.0	1,872.0	1,816.5	1,791.5	6.3	5.9	153.15	-21.6	272.2	514.6	506.5	8.15	63.145	
2,000.0	1,970.0	1,910.9	1,884.2	6.7	6.3	152.95	-20.8	290.2	547.4	538.8	8.62	63.525	
2,100.0	2,068.1	2,005.4	1,976.9	7.0	6.6	152.76	-20.0	308.1	580.2	571.1	9.08	63.865	
2,200.0	2,166.2	2,099.8	2,069.7	7.4	7.0	152.60	-19.2	326.0	613.0	603.4	9.55	64.171	
2,300.0	2,264.2	2,194.3	2,162.4	7.8	7.3	152.45	-18.3	343.9	645.8	635.7	10.02	64.447	
2,400.0	2,362.3	2,288.7	2,255.1	8.2	7.7	152.32	-17.5	361.9	678.6	668.1	10.49	64.699	
2,500.0	2,460.4	2,383.2	2,347.9	8.6	8.0	152.20	-16.7	379.8	711.4	700.4	10.96	64.928	
2,600.0	2,558.4	2,477.7	2,440.6	9.0	8.4	152.09	-15.9	397.7	744.2	732.7	11.42	65.138	
2,700.0	2,656.5	2,572.1	2,533.3	9.4	8.8	151.99	-15.1	415.6	777.0	765.1	11.89	65.331	
2,800.0	2,754.6	2,666.6	2,626.1	9.7	9.1	151.90	-14.3	433.6	809.8	797.4	12.36	65.509	
2,900.0	2,852.6	2,761.0	2,718.8	10.1	9.5	151.81	-13.5	451.5	842.6	829.8	12.83	65.674	
3,000.0	2,950.7	2,855.5	2,811.6	10.5	9.8	151.74	-12.7	469.4	875.4	862.1	13.30	65.827	
3,100.0	3,048.8	2,949.9	2,904.3	10.9	10.2	151.66	-11.9	487.3	908.2	894.4	13.77	65.969	
3,200.0	3,146.8	3,044.4	2,997.0	11.3	10.5	151.60	-11.1	505.3	941.0	926.8	14.24	66.102	
3,300.0	3,244.9	3,138.9	3,089.8	11.7	10.9	151.53	-10.2	523.2	973.8	959.1	14.70	66.226	
3,400.0	3,343.0	3,233.3	3,182.5	12.0	11.3	151.47	-9.4	541.1	1,006.7	991.5	15.17	66.342	
3,500.0	3,441.0	3,327.8	3,275.2	12.4	11.6	151.42	-8.6	559.0	1,039.5	1,023.8	15.64	66.452	
3,600.0	3,539.1	3,422.2	3,368.0	12.8	12.0	151.37	-7.8	577.0	1,072.3	1,056.2	16.11	66.554	
3,700.0	3,637.2	3,516.7	3,460.7	13.2	12.3	151.32	-7.0	594.9	1,105.1	1,088.5	16.58	66.651	

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design K28NW Pad - Benjamin Fee 28-11A - DD - Plan #2 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
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	26.5	0.27	98.351	
200.0	200.0	200.0	200.0	0.3	0.3	-162.20	-25.5	-8.2	26.8	26.2	0.62	43.097	CC, ES
300.0	300.0	300.3	300.3	0.5	0.5	-129.07	-24.2	-10.4	27.9	26.9	0.98	28.343	
400.0	399.6	400.5	400.1	0.7	0.7	-126.02	-20.1	-17.2	31.3	29.9	1.41	22.204	
500.0	498.8	500.3	499.3	1.0	1.0	-125.12	-14.5	-26.8	37.3	35.4	1.90	19.626	
600.0	597.1	599.9	598.2	1.3	1.2	-129.54	-8.8	-36.5	46.4	44.0	2.42	19.202	
700.0	695.2	699.3	697.0	1.7	1.5	-133.75	-3.1	-46.1	56.7	53.8	2.92	19.432	
800.0	793.2	798.7	795.8	2.1	1.7	-136.65	2.6	-55.7	67.2	63.8	3.41	19.695	
900.0	891.3	898.1	894.5	2.5	2.0	-138.76	8.3	-65.3	77.8	73.9	3.90	19.948	
1,000.0	989.4	997.5	993.3	2.8	2.2	-140.37	14.0	-74.9	88.6	84.2	4.39	20.179	
1,100.0	1,087.4	1,096.9	1,092.1	3.2	2.5	-141.62	19.7	-84.5	99.3	94.5	4.87	20.386	
1,200.0	1,185.5	1,196.2	1,190.8	3.6	2.8	-142.63	25.4	-94.1	110.1	104.8	5.35	20.569	
1,300.0	1,283.6	1,295.6	1,289.6	4.0	3.0	-143.46	31.1	-103.8	121.0	115.1	5.84	20.732	
1,400.0	1,381.6	1,395.0	1,388.4	4.4	3.3	-144.16	36.7	-113.4	131.8	125.5	6.32	20.876	
1,500.0	1,479.7	1,494.4	1,487.1	4.7	3.5	-144.74	42.4	-123.0	142.7	135.9	6.79	21.005	
1,600.0	1,577.8	1,593.8	1,585.9	5.1	3.8	-145.25	48.1	-132.6	153.6	146.3	7.27	21.121	
1,700.0	1,675.8	1,693.2	1,684.7	5.5	4.1	-145.69	53.8	-142.2	164.5	156.8	7.75	21.225	
1,800.0	1,773.9	1,792.6	1,783.4	5.9	4.3	-146.07	59.5	-151.8	175.4	167.2	8.23	21.319	
1,900.0	1,872.0	1,892.0	1,882.2	6.3	4.6	-146.41	65.2	-161.4	186.3	177.6	8.70	21.405	
2,000.0	1,970.0	1,991.4	1,981.0	6.7	4.8	-146.71	70.9	-171.0	197.2	188.1	9.18	21.483	
2,100.0	2,068.1	2,090.8	2,079.8	7.0	5.1	-146.98	76.6	-180.7	208.2	198.5	9.66	21.554	
2,200.0	2,166.2	2,190.2	2,178.5	7.4	5.4	-147.22	82.3	-190.3	219.1	209.0	10.13	21.620	
2,300.0	2,264.2	2,289.6	2,277.3	7.8	5.6	-147.44	87.9	-199.9	230.0	219.4	10.61	21.680	
2,400.0	2,362.3	2,389.0	2,376.1	8.2	5.9	-147.64	93.6	-209.5	241.0	229.9	11.09	21.736	
2,500.0	2,460.4	2,488.4	2,474.8	8.6	6.1	-147.82	99.3	-219.1	251.9	240.3	11.56	21.787	
2,600.0	2,558.4	2,587.8	2,573.6	9.0	6.4	-147.99	105.0	-228.7	262.8	250.8	12.04	21.835	
2,700.0	2,656.5	2,687.2	2,672.4	9.4	6.7	-148.14	110.7	-238.3	273.8	261.3	12.51	21.880	
2,800.0	2,754.6	2,786.6	2,771.1	9.7	6.9	-148.28	116.4	-247.9	284.7	271.7	12.99	21.922	
2,900.0	2,852.6	2,886.0	2,869.9	10.1	7.2	-148.42	122.1	-257.6	295.7	282.2	13.46	21.961	
3,000.0	2,950.7	2,985.4	2,968.7	10.5	7.5	-148.54	127.8	-267.2	306.6	292.7	13.94	21.997	
3,100.0	3,048.8	3,084.8	3,067.4	10.9	7.7	-148.65	133.4	-276.8	317.6	303.2	14.41	22.032	
3,200.0	3,146.8	3,184.2	3,166.2	11.3	8.0	-148.76	139.1	-286.4	328.5	313.6	14.89	22.064	
3,300.0	3,244.9	3,283.6	3,265.0	11.7	8.2	-148.86	144.8	-296.0	339.5	324.1	15.36	22.095	
3,400.0	3,343.0	3,383.0	3,363.7	12.0	8.5	-148.95	150.5	-305.6	350.4	334.6	15.84	22.123	
3,500.0	3,441.0	3,482.4	3,462.5	12.4	8.8	-149.04	156.2	-315.2	361.4	345.1	16.31	22.151	
3,600.0	3,539.1	3,581.8	3,561.3	12.8	9.0	-149.12	161.9	-324.8	372.3	355.5	16.79	22.176	
3,700.0	3,637.2	3,681.2	3,660.0	13.2	9.3	-149.20	167.6	-334.5	383.3	366.0	17.26	22.201	
3,800.0	3,735.2	3,780.6	3,758.8	13.6	9.5	-149.27	173.3	-344.1	394.2	376.5	17.74	22.224	
3,900.0	3,833.3	3,880.0	3,857.6	14.0	9.8	-149.34	179.0	-353.7	405.2	387.0	18.21	22.246	
4,000.0	3,931.4	3,979.4	3,956.3	14.4	10.1	-149.40	184.6	-363.3	416.2	397.5	18.69	22.267	
4,100.0	4,029.4	4,078.8	4,055.1	14.7	10.3	-149.47	190.3	-372.9	427.1	407.9	19.16	22.287	
4,200.0	4,127.5	4,178.2	4,153.9	15.1	10.6	-149.53	196.0	-382.5	438.1	418.4	19.64	22.306	
4,300.0	4,225.6	4,277.6	4,252.6	15.5	10.9	-149.58	201.7	-392.1	449.0	428.9	20.11	22.325	
4,400.0	4,323.6	4,377.0	4,351.4	15.9	11.1	-149.64	207.4	-401.7	460.0	439.4	20.59	22.342	
4,500.0	4,421.7	4,476.3	4,450.2	16.3	11.4	-149.69	213.1	-411.4	470.9	449.9	21.06	22.359	
4,600.0	4,519.8	4,575.7	4,548.9	16.7	11.6	-149.74	218.8	-421.0	481.9	460.4	21.54	22.375	
4,700.0	4,617.8	4,675.1	4,647.7	17.1	11.9	-149.78	224.5	-430.6	492.9	470.8	22.01	22.390	
4,800.0	4,715.9	4,774.5	4,746.5	17.4	12.2	-149.83	230.2	-440.2	503.8	481.3	22.49	22.405	
4,900.0	4,814.0	4,873.9	4,845.2	17.8	12.4	-149.87	235.8	-449.8	514.8	491.8	22.96	22.419	
5,000.0	4,912.0	4,973.3	4,944.0	18.2	12.7	-149.91	241.5	-459.4	525.7	502.3	23.44	22.433	
5,100.0	5,010.1	5,072.7	5,042.8	18.6	12.9	-149.95	247.2	-469.0	536.7	512.8	23.91	22.446	

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design K28NW Pad - Benjamin Fee 28-11A - DD - Plan #2

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,108.2	5,172.1	5,141.5	19.0	13.2	-149.99	252.9	-478.6	547.7	523.3	24.39	22.458	
5,300.0	5,206.2	5,271.5	5,240.3	19.4	13.5	-150.02	258.6	-488.3	558.6	533.8	24.86	22.471	
5,400.0	5,304.3	5,370.9	5,339.1	19.7	13.7	-150.06	264.3	-497.9	569.6	544.2	25.33	22.482	
5,500.0	5,402.3	5,470.3	5,437.8	20.1	14.0	-150.09	270.0	-507.5	580.5	554.7	25.81	22.494	
5,600.0	5,500.4	5,569.7	5,536.6	20.5	14.3	-150.12	275.7	-517.1	591.5	565.2	26.28	22.504	
5,700.0	5,598.5	5,669.1	5,635.4	20.9	14.5	-150.15	281.3	-526.7	602.5	575.7	26.76	22.515	
5,800.0	5,696.5	5,768.5	5,734.1	21.3	14.8	-150.18	287.0	-536.3	613.4	586.2	27.23	22.525	
5,900.0	5,794.6	5,867.9	5,832.9	21.7	15.0	-150.21	292.7	-545.9	624.4	596.7	27.71	22.535	
6,000.0	5,892.7	5,967.3	5,931.7	22.1	15.3	-150.24	298.4	-555.5	635.3	607.2	28.18	22.544	
6,100.0	5,990.7	6,066.7	6,030.4	22.4	15.6	-150.27	304.1	-565.2	646.3	617.6	28.66	22.554	
6,200.0	6,088.9	6,166.1	6,129.2	22.8	15.8	-150.32	309.8	-574.8	657.1	627.9	29.13	22.553	
6,300.0	6,187.5	6,265.8	6,228.2	23.1	16.1	-150.30	315.5	-584.4	665.5	635.8	29.62	22.464	
6,400.0	6,286.6	6,358.3	6,320.2	23.4	16.3	-150.17	320.5	-592.9	671.2	641.1	30.08	22.317	
6,500.0	6,386.1	6,446.9	6,408.6	23.6	16.5	-150.09	324.0	-598.7	675.5	645.0	30.44	22.187	
6,600.0	6,485.9	6,535.5	6,497.1	23.8	16.6	-150.06	326.1	-602.3	678.4	647.7	30.74	22.071	
6,700.0	6,585.8	6,624.3	6,585.8	23.9	16.7	-150.09	326.7	-603.4	680.0	649.0	30.96	21.962	
6,800.0	6,685.8	6,724.3	6,685.8	23.9	16.8	177.95	326.7	-603.4	680.1	648.9	31.21	21.790	
6,900.0	6,785.8	6,824.3	6,785.8	24.0	17.0	177.95	326.7	-603.4	680.1	648.6	31.48	21.608	
7,000.0	6,885.8	6,924.3	6,885.8	24.1	17.1	177.95	326.7	-603.4	680.1	648.4	31.74	21.427	
7,100.0	6,985.8	7,024.3	6,985.8	24.2	17.2	177.95	326.7	-603.4	680.1	648.1	32.01	21.248	
7,200.0	7,085.8	7,124.3	7,085.8	24.3	17.3	177.95	326.7	-603.4	680.1	647.8	32.28	21.071	
7,300.0	7,185.8	7,224.3	7,185.8	24.4	17.5	177.95	326.7	-603.4	680.1	647.6	32.55	20.896	
7,400.0	7,285.8	7,324.3	7,285.8	24.5	17.6	177.95	326.7	-603.4	680.1	647.3	32.82	20.723	
7,500.0	7,385.8	7,424.3	7,385.8	24.6	17.7	177.95	326.7	-603.4	680.1	647.0	33.09	20.552	
7,600.0	7,485.8	7,524.3	7,485.8	24.7	17.8	177.95	326.7	-603.4	680.1	646.7	33.37	20.383	
7,700.0	7,585.8	7,624.3	7,585.8	24.8	18.0	177.95	326.7	-603.4	680.1	646.5	33.64	20.215	
7,800.0	7,685.8	7,724.3	7,685.8	24.8	18.1	177.95	326.7	-603.4	680.1	646.2	33.92	20.050	
7,900.0	7,785.8	7,824.3	7,785.8	24.9	18.2	177.95	326.7	-603.4	680.1	645.9	34.20	19.887	
8,000.0	7,885.8	7,924.3	7,885.8	25.0	18.4	177.95	326.7	-603.4	680.1	645.6	34.48	19.725	
8,100.0	7,985.8	8,024.3	7,985.8	25.1	18.5	177.95	326.7	-603.4	680.1	645.3	34.76	19.566	
8,200.0	8,085.8	8,124.3	8,085.8	25.2	18.6	177.95	326.7	-603.4	680.1	645.1	35.04	19.408	
8,300.0	8,185.8	8,224.3	8,185.8	25.3	18.8	177.95	326.7	-603.4	680.1	644.8	35.33	19.252	
8,400.0	8,285.8	8,324.3	8,285.8	25.4	18.9	177.95	326.7	-603.4	680.1	644.5	35.61	19.098	
8,500.0	8,385.8	8,424.3	8,385.8	25.5	19.0	177.95	326.7	-603.4	680.1	644.2	35.90	18.946	
8,600.0	8,485.8	8,524.3	8,485.8	25.6	19.2	177.95	326.7	-603.4	680.1	643.9	36.18	18.796	
8,700.0	8,585.8	8,624.3	8,585.8	25.7	19.3	177.95	326.7	-603.4	680.1	643.6	36.47	18.647	
8,800.0	8,685.8	8,724.3	8,685.8	25.8	19.4	177.95	326.7	-603.4	680.1	643.3	36.76	18.501	
8,900.0	8,785.8	8,824.3	8,785.8	25.9	19.6	177.95	326.7	-603.4	680.1	643.1	37.05	18.356	
9,000.0	8,885.8	8,924.3	8,885.8	26.1	19.7	177.95	326.7	-603.4	680.1	642.8	37.34	18.213	
9,054.2	8,940.0	8,978.4	8,940.0	26.1	19.8	177.95	326.7	-603.4	680.1	642.6	37.50	18.136	SF

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
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	300.0	300.0	0.5	0.5	-103.38	-6.4	-9.9	12.1	11.2	0.99	12.305	
400.0	399.6	400.1	399.7	0.7	0.7	-102.49	-0.5	-15.1	13.4	12.0	1.43	9.430	
500.0	498.8	500.1	498.8	1.0	1.0	-101.50	9.2	-23.8	15.6	13.6	1.98	7.876	
600.0	597.1	600.0	597.6	1.3	1.3	-109.85	20.4	-33.7	19.0	16.4	2.59	7.319	SF
700.0	695.2	699.8	696.3	1.7	1.6	-119.06	31.6	-43.6	23.3	20.1	3.15	7.388	
800.0	793.2	799.7	795.1	2.1	1.9	-125.28	42.8	-53.6	28.0	24.3	3.68	7.613	
900.0	891.3	899.5	893.8	2.5	2.2	-129.67	54.0	-63.5	32.9	28.8	4.18	7.874	
1,000.0	989.4	999.4	992.5	2.8	2.5	-132.90	65.2	-73.4	38.0	33.4	4.68	8.129	
1,100.0	1,087.4	1,099.2	1,091.2	3.2	2.8	-135.36	76.3	-83.4	43.2	38.0	5.17	8.366	
1,200.0	1,185.5	1,199.1	1,190.0	3.6	3.1	-137.29	87.5	-93.3	48.5	42.8	5.65	8.579	
1,300.0	1,283.6	1,298.9	1,288.7	4.0	3.5	-138.84	98.7	-103.2	53.8	47.6	6.13	8.771	
1,400.0	1,381.6	1,398.8	1,387.4	4.4	3.8	-140.12	109.9	-113.1	59.1	52.5	6.61	8.943	
1,500.0	1,479.7	1,498.6	1,486.1	4.7	4.1	-141.18	121.1	-123.1	64.4	57.3	7.08	9.097	
1,600.0	1,577.8	1,598.5	1,584.9	5.1	4.4	-142.08	132.3	-133.0	69.8	62.2	7.56	9.235	
1,700.0	1,675.8	1,698.3	1,683.6	5.5	4.7	-142.85	143.5	-142.9	75.2	67.2	8.03	9.360	
1,800.0	1,773.9	1,798.2	1,782.3	5.9	5.0	-143.51	154.7	-152.9	80.6	72.1	8.51	9.474	
1,900.0	1,872.0	1,898.0	1,881.0	6.3	5.3	-144.10	165.9	-162.8	86.0	77.0	8.98	9.576	
2,000.0	1,970.0	1,997.9	1,979.7	6.7	5.6	-144.61	177.1	-172.7	91.4	81.9	9.45	9.670	
2,100.0	2,068.1	2,097.7	2,078.5	7.0	6.0	-145.07	188.3	-182.7	96.8	86.9	9.92	9.756	
2,200.0	2,166.2	2,197.6	2,177.2	7.4	6.3	-145.48	199.5	-192.6	102.2	91.8	10.40	9.835	
2,300.0	2,264.2	2,297.4	2,275.9	7.8	6.6	-145.85	210.7	-202.5	107.7	96.8	10.87	9.908	
2,400.0	2,362.3	2,397.3	2,374.6	8.2	6.9	-146.18	221.8	-212.5	113.1	101.8	11.34	9.975	
2,500.0	2,460.4	2,497.1	2,473.4	8.6	7.2	-146.48	233.0	-222.4	118.5	106.7	11.81	10.037	
2,600.0	2,558.4	2,597.0	2,572.1	9.0	7.5	-146.75	244.2	-232.3	124.0	111.7	12.28	10.095	
2,700.0	2,656.5	2,696.8	2,670.8	9.4	7.8	-147.01	255.4	-242.2	129.4	116.7	12.75	10.149	
2,800.0	2,754.6	2,796.7	2,769.5	9.7	8.2	-147.24	266.6	-252.2	134.9	121.6	13.22	10.199	
2,900.0	2,852.6	2,896.5	2,868.2	10.1	8.5	-147.45	277.8	-262.1	140.3	126.6	13.69	10.246	
3,000.0	2,950.7	2,996.4	2,967.0	10.5	8.8	-147.65	289.0	-272.0	145.8	131.6	14.16	10.290	
3,100.0	3,048.8	3,096.2	3,065.7	10.9	9.1	-147.83	300.2	-282.0	151.2	136.6	14.64	10.332	
3,200.0	3,146.8	3,196.1	3,164.4	11.3	9.4	-148.00	311.4	-291.9	156.7	141.6	15.11	10.370	
3,300.0	3,244.9	3,295.9	3,263.1	11.7	9.7	-148.16	322.6	-301.8	162.1	146.5	15.58	10.407	
3,400.0	3,343.0	3,395.8	3,361.9	12.0	10.1	-148.31	333.8	-311.8	167.6	151.5	16.05	10.442	
3,500.0	3,441.0	3,495.6	3,460.6	12.4	10.4	-148.45	345.0	-321.7	173.0	156.5	16.52	10.475	
3,600.0	3,539.1	3,595.5	3,559.3	12.8	10.7	-148.58	356.2	-331.6	178.5	161.5	16.99	10.506	
3,700.0	3,637.2	3,695.3	3,658.0	13.2	11.0	-148.71	367.3	-341.5	183.9	166.5	17.46	10.535	
3,800.0	3,735.2	3,795.2	3,756.8	13.6	11.3	-148.82	378.5	-351.5	189.4	171.5	17.93	10.563	
3,900.0	3,833.3	3,895.0	3,855.5	14.0	11.6	-148.93	389.7	-361.4	194.8	176.4	18.40	10.590	
4,000.0	3,931.4	3,994.9	3,954.2	14.4	11.9	-149.04	400.9	-371.3	200.3	181.4	18.87	10.615	
4,100.0	4,029.4	4,094.7	4,052.9	14.7	12.3	-149.13	412.1	-381.3	205.8	186.4	19.34	10.639	
4,200.0	4,127.5	4,194.6	4,151.6	15.1	12.6	-149.23	423.3	-391.2	211.2	191.4	19.81	10.662	
4,300.0	4,225.6	4,294.4	4,250.4	15.5	12.9	-149.31	434.5	-401.1	216.7	196.4	20.28	10.684	
4,400.0	4,323.6	4,394.3	4,349.1	15.9	13.2	-149.40	445.7	-411.1	222.1	201.4	20.75	10.705	
4,500.0	4,421.7	4,494.1	4,447.8	16.3	13.5	-149.48	456.9	-421.0	227.6	206.4	21.22	10.725	
4,600.0	4,519.8	4,594.0	4,546.5	16.7	13.8	-149.56	468.1	-430.9	233.1	211.4	21.69	10.744	
4,700.0	4,617.8	4,693.8	4,645.3	17.1	14.1	-149.63	479.3	-440.8	238.5	216.4	22.16	10.763	
4,800.0	4,715.9	4,793.7	4,744.0	17.4	14.5	-149.70	490.5	-450.8	244.0	221.4	22.63	10.781	
4,900.0	4,814.0	4,893.5	4,842.7	17.8	14.8	-149.76	501.7	-460.7	249.5	226.4	23.10	10.798	
5,000.0	4,912.0	4,993.4	4,941.4	18.2	15.1	-149.83	512.8	-470.6	254.9	231.3	23.57	10.814	
5,100.0	5,010.1	5,093.2	5,040.2	18.6	15.4	-149.89	524.0	-480.6	260.4	236.3	24.04	10.830	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,108.2	5,193.1	5,138.9	19.0	15.7	-149.95	535.2	-490.5	265.8	241.3	24.51	10.845	
5,300.0	5,206.2	5,292.9	5,237.6	19.4	16.0	-150.00	546.4	-500.4	271.3	246.3	24.98	10.859	
5,400.0	5,304.3	5,392.8	5,336.3	19.7	16.4	-150.06	557.6	-510.4	276.8	251.3	25.45	10.874	
5,500.0	5,402.3	5,492.6	5,435.0	20.1	16.7	-150.11	568.8	-520.3	282.2	256.3	25.92	10.887	
5,600.0	5,500.4	5,592.5	5,533.8	20.5	17.0	-150.16	580.0	-530.2	287.7	261.3	26.39	10.900	
5,700.0	5,598.5	5,692.3	5,632.5	20.9	17.3	-150.21	591.2	-540.2	293.2	266.3	26.86	10.913	
5,800.0	5,696.5	5,792.2	5,731.2	21.3	17.6	-150.25	602.4	-550.1	298.6	271.3	27.33	10.925	
5,900.0	5,794.6	5,892.0	5,829.9	21.7	17.9	-150.30	613.6	-560.0	304.1	276.3	27.81	10.937	
6,000.0	5,892.7	5,991.9	5,928.7	22.1	18.2	-150.34	624.8	-569.9	309.6	281.3	28.28	10.948	
6,100.0	5,990.7	6,091.7	6,027.4	22.4	18.6	-150.38	636.0	-579.9	315.0	286.3	28.75	10.959	
6,200.0	6,088.9	6,191.6	6,126.1	22.8	18.9	-150.42	647.2	-589.8	320.3	291.1	29.22	10.962	
6,300.0	6,187.5	6,287.1	6,220.6	23.1	19.2	-150.29	657.5	-599.0	323.6	293.9	29.71	10.889	
6,400.0	6,286.6	6,379.0	6,311.9	23.4	19.4	-150.18	665.5	-606.1	326.0	295.9	30.14	10.818	
6,500.0	6,386.1	6,470.9	6,403.5	23.6	19.6	-150.11	671.4	-611.3	327.9	297.5	30.49	10.756	
6,600.0	6,485.9	6,562.8	6,495.2	23.8	19.7	-150.09	675.0	-614.5	329.3	298.5	30.77	10.701	
6,700.0	6,585.8	6,654.6	6,587.0	23.9	19.8	-150.11	676.4	-615.7	330.1	299.1	30.99	10.652	
6,800.0	6,685.8	6,753.5	6,685.8	23.9	19.9	177.93	676.4	-615.8	330.2	299.0	31.24	10.572	
6,900.0	6,785.8	6,853.5	6,785.8	24.0	20.0	177.93	676.4	-615.8	330.2	298.7	31.50	10.483	
7,000.0	6,885.8	6,953.5	6,885.8	24.1	20.1	177.93	676.4	-615.8	330.2	298.5	31.77	10.395	
7,100.0	6,985.8	7,053.5	6,985.8	24.2	20.2	177.93	676.4	-615.8	330.2	298.2	32.03	10.308	
7,200.0	7,085.8	7,153.5	7,085.8	24.3	20.3	177.93	676.4	-615.8	330.2	297.9	32.30	10.222	
7,300.0	7,185.8	7,253.5	7,185.8	24.4	20.4	177.93	676.4	-615.8	330.2	297.6	32.57	10.137	
7,400.0	7,285.8	7,353.5	7,285.8	24.5	20.5	177.93	676.4	-615.8	330.2	297.4	32.85	10.053	
7,500.0	7,385.8	7,453.5	7,385.8	24.6	20.6	177.93	676.4	-615.8	330.2	297.1	33.12	9.970	
7,600.0	7,485.8	7,553.5	7,485.8	24.7	20.8	177.93	676.4	-615.8	330.2	296.8	33.39	9.888	
7,700.0	7,585.8	7,653.5	7,585.8	24.8	20.9	177.93	676.4	-615.8	330.2	296.5	33.67	9.807	
7,800.0	7,685.8	7,753.5	7,685.8	24.8	21.0	177.93	676.4	-615.8	330.2	296.3	33.95	9.727	
7,900.0	7,785.8	7,853.5	7,785.8	24.9	21.1	177.93	676.4	-615.8	330.2	296.0	34.23	9.648	
8,000.0	7,885.8	7,953.5	7,885.8	25.0	21.2	177.93	676.4	-615.8	330.2	295.7	34.51	9.569	
8,100.0	7,985.8	8,053.5	7,985.8	25.1	21.3	177.93	676.4	-615.8	330.2	295.4	34.79	9.492	
8,200.0	8,085.8	8,153.5	8,085.8	25.2	21.4	177.93	676.4	-615.8	330.2	295.1	35.07	9.415	
8,300.0	8,185.8	8,253.5	8,185.8	25.3	21.6	177.93	676.4	-615.8	330.2	294.9	35.36	9.340	
8,400.0	8,285.8	8,353.5	8,285.8	25.4	21.7	177.93	676.4	-615.8	330.2	294.6	35.64	9.265	
8,500.0	8,385.8	8,453.5	8,385.8	25.5	21.8	177.93	676.4	-615.8	330.2	294.3	35.93	9.191	
8,600.0	8,485.8	8,553.5	8,485.8	25.6	21.9	177.93	676.4	-615.8	330.2	294.0	36.21	9.118	
8,700.0	8,585.8	8,653.5	8,585.8	25.7	22.0	177.93	676.4	-615.8	330.2	293.7	36.50	9.046	
8,800.0	8,685.8	8,753.5	8,685.8	25.8	22.1	177.93	676.4	-615.8	330.2	293.4	36.79	8.975	
8,900.0	8,785.8	8,853.5	8,785.8	25.9	22.3	177.93	676.4	-615.8	330.2	293.1	37.08	8.905	
9,000.0	8,885.8	8,953.5	8,885.8	26.1	22.4	177.93	676.4	-615.8	330.2	292.8	37.37	8.835	
9,029.2	8,915.0	8,982.7	8,915.0	26.1	22.4	177.93	676.4	-615.8	330.2	292.8	37.46	8.815	
9,054.2	8,940.0	8,992.6	8,925.0	26.1	22.4	177.93	676.4	-615.8	330.6	293.0	37.51	8.812	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
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	298.5	298.4	0.5	0.5	-151.77	-52.2	2.2	54.6	53.6	0.98	55.971	
400.0	399.6	395.5	395.2	0.7	0.7	-160.28	-55.8	8.8	66.4	65.0	1.34	49.365	SF
500.0	498.8	489.7	488.5	1.0	1.0	-168.96	-61.5	19.2	88.0	86.3	1.71	51.388	
600.0	597.1	579.8	577.3	1.3	1.3	-175.62	-69.1	33.0	119.6	117.6	2.07	57.850	
700.0	695.2	667.5	662.9	1.7	1.6	179.65	-78.3	49.9	157.3	154.9	2.42	65.012	
800.0	793.2	758.9	751.7	2.1	2.0	176.41	-88.5	68.6	196.9	194.1	2.78	70.779	
900.0	891.3	850.3	840.6	2.5	2.4	174.24	-98.8	87.3	236.8	233.7	3.14	75.320	
1,000.0	989.4	941.7	929.5	2.8	2.8	172.70	-109.0	106.0	276.9	273.4	3.51	78.941	
1,100.0	1,087.4	1,033.0	1,018.3	3.2	3.2	171.55	-119.2	124.7	317.2	313.3	3.87	81.884	
1,200.0	1,185.5	1,124.4	1,107.2	3.6	3.6	170.66	-129.5	143.3	357.5	353.3	4.24	84.316	
1,300.0	1,283.6	1,215.8	1,196.0	4.0	4.1	169.94	-139.7	162.0	397.9	393.3	4.61	86.358	
1,400.0	1,381.6	1,307.2	1,284.9	4.4	4.5	169.36	-150.0	180.7	438.3	433.3	4.98	88.094	
1,500.0	1,479.7	1,398.6	1,373.8	4.7	4.9	168.88	-160.2	199.4	478.8	473.4	5.34	89.587	
1,600.0	1,577.8	1,490.0	1,462.6	5.1	5.3	168.47	-170.4	218.1	519.2	513.5	5.71	90.883	
1,700.0	1,675.8	1,581.3	1,551.5	5.5	5.7	168.12	-180.7	236.8	559.7	553.7	6.08	92.020	
1,800.0	1,773.9	1,672.7	1,640.4	5.9	6.1	167.82	-190.9	255.5	600.3	593.8	6.45	93.024	
1,900.0	1,872.0	1,764.1	1,729.2	6.3	6.5	167.56	-201.1	274.2	640.8	634.0	6.82	93.918	
2,000.0	1,970.0	1,855.5	1,818.1	6.7	6.9	167.32	-211.4	292.9	681.3	674.1	7.19	94.718	
2,100.0	2,068.1	1,946.9	1,906.9	7.0	7.3	167.12	-221.6	311.6	721.9	714.3	7.56	95.439	
2,200.0	2,166.2	2,038.2	1,995.8	7.4	7.7	166.93	-231.8	330.3	762.4	754.5	7.93	96.091	
2,300.0	2,264.2	2,129.6	2,084.7	7.8	8.1	166.77	-242.1	349.0	803.0	794.7	8.31	96.684	
2,400.0	2,362.3	2,221.0	2,173.5	8.2	8.6	166.62	-252.3	367.7	843.5	834.9	8.68	97.226	
2,500.0	2,460.4	2,312.4	2,262.4	8.6	9.0	166.48	-262.6	386.4	884.1	875.1	9.05	97.722	
2,600.0	2,558.4	2,403.8	2,351.2	9.0	9.4	166.36	-272.8	405.1	924.7	915.3	9.42	98.179	
2,700.0	2,656.5	2,495.2	2,440.1	9.4	9.8	166.24	-283.0	423.8	965.3	955.5	9.79	98.601	
2,800.0	2,754.6	2,586.5	2,529.0	9.7	10.2	166.14	-293.3	442.5	1,005.8	995.7	10.16	98.991	
2,900.0	2,852.6	2,677.9	2,617.8	10.1	10.6	166.04	-303.5	461.2	1,046.4	1,035.9	10.53	99.353	
3,000.0	2,950.7	2,769.3	2,706.7	10.5	11.0	165.95	-313.7	479.9	1,087.0	1,076.1	10.90	99.691	

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
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	300.2	300.1	0.5	0.5	-160.02	-15.8	2.4	18.4	17.4	0.98	18.777	SF
400.0	399.6	399.4	399.0	0.7	0.7	177.00	-12.8	9.6	26.5	25.1	1.37	19.398	
500.0	498.8	496.7	495.5	1.0	1.0	161.25	-8.1	21.3	44.0	42.2	1.80	24.514	
600.0	597.1	591.4	588.6	1.3	1.3	152.96	-1.7	37.0	70.2	67.9	2.28	30.725	
700.0	695.2	683.6	678.5	1.7	1.7	147.69	6.2	56.4	101.3	98.4	2.83	35.846	
800.0	793.2	777.8	769.7	2.1	2.2	144.13	15.0	78.1	134.3	130.9	3.39	39.648	
900.0	891.3	871.9	860.8	2.5	2.6	141.98	23.8	99.8	167.5	163.6	3.95	42.382	
1,000.0	989.4	966.1	952.0	2.8	3.0	140.53	32.6	121.5	201.0	196.4	4.52	44.427	
1,100.0	1,087.4	1,060.2	1,043.2	3.2	3.5	139.50	41.4	143.2	234.5	229.4	5.10	46.008	
1,200.0	1,185.5	1,154.4	1,134.4	3.6	3.9	138.73	50.2	164.9	268.0	262.4	5.67	47.264	
1,300.0	1,283.6	1,248.5	1,225.6	4.0	4.4	138.13	59.0	186.6	301.6	295.4	6.25	48.285	
1,400.0	1,381.6	1,342.7	1,316.8	4.4	4.8	137.65	67.8	208.4	335.2	328.4	6.82	49.130	
1,500.0	1,479.7	1,436.8	1,408.0	4.7	5.3	137.25	76.7	230.1	368.8	361.4	7.40	49.842	
1,600.0	1,577.8	1,531.0	1,499.2	5.1	5.7	136.93	85.5	251.8	402.5	394.5	7.98	50.448	
1,700.0	1,675.8	1,625.1	1,590.4	5.5	6.2	136.65	94.3	273.5	436.1	427.6	8.56	50.971	
1,800.0	1,773.9	1,719.3	1,681.5	5.9	6.6	136.41	103.1	295.2	469.8	460.7	9.14	51.427	
1,900.0	1,872.0	1,813.4	1,772.7	6.3	7.1	136.21	111.9	316.9	503.5	493.7	9.71	51.828	
2,000.0	1,970.0	1,907.6	1,863.9	6.7	7.5	136.03	120.7	338.6	537.1	526.8	10.29	52.182	
2,100.0	2,068.1	2,001.7	1,955.1	7.0	8.0	135.87	129.5	360.3	570.8	559.9	10.87	52.499	
2,200.0	2,166.2	2,095.9	2,046.3	7.4	8.4	135.73	138.3	382.0	604.5	593.0	11.45	52.782	
2,300.0	2,264.2	2,190.0	2,137.5	7.8	8.9	135.60	147.2	403.7	638.2	626.1	12.03	53.038	
2,400.0	2,362.3	2,284.2	2,228.7	8.2	9.3	135.49	156.0	425.4	671.8	659.2	12.61	53.271	
2,500.0	2,460.4	2,378.3	2,319.9	8.6	9.8	135.38	164.8	447.1	705.5	692.3	13.19	53.482	
2,600.0	2,558.4	2,472.4	2,411.0	9.0	10.2	135.29	173.6	468.8	739.2	725.4	13.77	53.676	
2,700.0	2,656.5	2,566.6	2,502.2	9.4	10.7	135.21	182.4	490.5	772.9	758.5	14.35	53.853	
2,800.0	2,754.6	2,660.7	2,593.4	9.7	11.1	135.13	191.2	512.2	806.6	791.6	14.93	54.017	
2,900.0	2,852.6	2,754.9	2,684.6	10.1	11.5	135.06	200.0	533.9	840.3	824.8	15.51	54.168	
3,000.0	2,950.7	2,849.0	2,775.8	10.5	12.0	134.99	208.8	555.6	874.0	857.9	16.09	54.308	
3,100.0	3,048.8	2,943.2	2,867.0	10.9	12.4	134.93	217.7	577.3	907.6	891.0	16.67	54.438	
3,200.0	3,146.8	3,037.3	2,958.2	11.3	12.9	134.87	226.5	599.0	941.3	924.1	17.25	54.560	
3,300.0	3,244.9	3,131.5	3,049.4	11.7	13.4	134.82	235.3	620.7	975.0	957.2	17.83	54.673	
3,400.0	3,343.0	3,225.6	3,140.6	12.0	13.8	134.77	244.1	642.4	1,008.7	990.3	18.41	54.780	
3,500.0	3,441.0	3,319.8	3,231.7	12.4	14.3	134.72	252.9	664.1	1,042.4	1,023.4	18.99	54.879	
3,600.0	3,539.1	3,413.9	3,322.9	12.8	14.7	134.68	261.7	685.8	1,076.1	1,056.5	19.58	54.973	

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

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-111.37	-42.2	-108.0	116.0				
100.0	100.0	100.0	100.0	0.1	0.1	-111.37	-42.2	-108.0	116.0	115.7	0.27	425.902	
200.0	200.0	200.0	200.0	0.3	0.3	-111.37	-42.2	-108.0	116.0	115.3	0.62	186.632	
300.0	300.0	300.0	300.0	0.5	0.5	-80.70	-42.2	-108.0	115.5	114.5	0.98	118.033	
400.0	399.6	399.6	399.6	0.7	0.7	-84.60	-42.2	-108.0	114.5	113.1	1.37	83.396	
500.0	498.8	503.9	503.8	1.0	0.8	-92.28	-42.2	-105.2	111.8	109.9	1.84	60.718	
600.0	597.1	603.6	603.2	1.3	1.0	-104.34	-42.5	-97.3	108.5	106.1	2.36	45.954	
609.7	606.6	612.8	612.4	1.4	1.1	-105.66	-42.7	-96.4	108.4	106.0	2.41	44.961	CC, ES
700.0	695.2	697.2	696.2	1.7	1.3	-118.51	-46.0	-87.0	112.1	109.3	2.86	39.146	
800.0	793.2	788.1	785.9	2.1	1.5	-132.27	-53.1	-74.7	126.0	122.7	3.31	38.012	SF
900.0	891.3	875.7	871.9	2.5	1.8	-143.69	-63.4	-60.7	150.0	146.3	3.69	40.648	
1,000.0	989.4	960.1	953.7	2.8	2.2	-152.34	-76.5	-45.4	182.6	178.6	4.01	45.503	
1,100.0	1,087.4	1,041.0	1,031.4	3.2	2.6	-158.66	-91.9	-28.9	222.2	217.9	4.31	51.540	
1,200.0	1,185.5	1,118.4	1,104.8	3.6	3.0	-163.27	-109.4	-11.5	267.3	262.7	4.60	58.165	
1,300.0	1,283.6	1,192.2	1,173.9	4.0	3.5	-166.67	-128.4	6.4	317.1	312.2	4.88	65.036	
1,400.0	1,381.6	1,262.6	1,238.7	4.4	4.0	-169.23	-148.6	24.8	370.9	365.7	5.16	71.933	
1,500.0	1,479.7	1,334.4	1,303.9	4.7	4.6	-171.31	-171.2	44.7	428.0	422.6	5.43	78.790	
1,600.0	1,577.8	1,414.9	1,376.7	5.1	5.2	-173.13	-197.1	67.2	486.1	480.4	5.72	84.966	
1,700.0	1,675.8	1,495.4	1,449.6	5.5	5.8	-174.57	-222.9	89.8	544.5	538.5	6.01	90.559	
1,800.0	1,773.9	1,575.9	1,522.4	5.9	6.4	-175.74	-248.7	112.3	603.1	596.8	6.31	95.627	
1,900.0	1,872.0	1,656.4	1,595.2	6.3	7.0	-176.70	-274.5	134.9	661.8	655.2	6.60	100.249	
2,000.0	1,970.0	1,736.9	1,668.0	6.7	7.6	-177.51	-300.4	157.5	720.6	713.7	6.90	104.478	
2,100.0	2,068.1	1,817.4	1,740.8	7.0	8.3	-178.19	-326.2	180.0	779.5	772.3	7.19	108.356	
2,200.0	2,166.2	1,897.9	1,813.6	7.4	8.9	-178.78	-352.0	202.6	838.5	831.0	7.49	111.923	
2,300.0	2,264.2	1,978.3	1,886.5	7.8	9.5	-179.29	-377.8	225.1	897.5	889.7	7.79	115.206	
2,400.0	2,362.3	2,058.8	1,959.3	8.2	10.1	-179.74	-403.7	247.7	956.5	948.4	8.09	118.245	
2,500.0	2,460.4	2,139.3	2,032.1	8.6	10.8	179.86	-429.5	270.3	1,015.6	1,007.2	8.39	121.064	
2,600.0	2,558.4	2,219.8	2,104.9	9.0	11.4	179.50	-455.3	292.8	1,074.7	1,066.0	8.69	123.686	

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

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-131.60	-95.9	-108.0	144.4				
100.0	100.0	102.9	102.8	0.1	0.2	-131.44	-94.9	-107.5	143.4	143.1	0.29	492.044	
200.0	200.0	205.6	205.5	0.3	0.3	-131.10	-92.3	-105.8	140.5	139.8	0.64	219.366	
300.0	300.0	311.2	310.9	0.5	0.6	-100.44	-88.2	-101.2	135.2	134.2	1.00	135.348	
400.0	399.6	413.7	412.9	0.7	0.8	-104.67	-82.4	-93.4	127.4	126.0	1.40	91.260	
500.0	498.8	515.6	514.2	1.0	1.1	-111.56	-74.5	-84.5	119.8	118.0	1.85	64.858	
600.0	597.1	617.0	614.5	1.3	1.4	-121.46	-64.2	-74.0	113.5	111.2	2.35	48.313	
700.0	695.2	717.4	713.4	1.7	1.8	-133.28	-51.9	-61.4	109.3	106.5	2.86	38.176	
800.0	793.2	818.1	811.9	2.1	2.2	-146.10	-36.6	-47.4	106.9	103.5	3.40	31.431	
835.0	827.6	852.9	845.8	2.2	2.3	-150.81	-30.7	-42.2	106.6	103.0	3.60	29.637	CC, ES
900.0	891.3	917.4	908.3	2.5	2.6	-159.83	-18.9	-31.9	107.5	103.5	3.98	26.983	
1,000.0	989.4	1,015.5	1,003.0	2.8	3.1	-173.65	1.2	-15.3	112.2	107.6	4.66	24.084	
1,100.0	1,087.4	1,111.5	1,094.6	3.2	3.7	172.97	22.9	3.3	122.9	117.4	5.49	22.397	
1,200.0	1,185.5	1,205.9	1,183.9	3.6	4.2	161.20	46.0	23.3	139.5	133.0	6.44	21.673	SF
1,300.0	1,283.6	1,298.1	1,270.6	4.0	4.8	151.65	69.3	44.5	162.0	154.6	7.39	21.914	
1,400.0	1,381.6	1,391.8	1,358.1	4.4	5.4	143.99	93.6	67.4	189.2	180.9	8.29	22.810	
1,500.0	1,479.7	1,488.3	1,448.7	4.7	6.0	138.30	118.3	89.5	217.5	208.4	9.14	23.791	
1,600.0	1,577.8	1,578.7	1,533.6	5.1	6.6	134.20	141.3	110.5	247.6	237.7	9.93	24.936	
1,700.0	1,675.8	1,671.7	1,620.5	5.5	7.2	130.80	165.0	133.3	279.9	269.2	10.70	26.163	
1,800.0	1,773.9	1,768.9	1,711.7	5.9	7.8	128.05	189.6	156.2	312.1	300.7	11.46	27.226	
1,900.0	1,872.0	1,865.4	1,802.5	6.3	8.4	125.87	213.9	178.2	344.0	331.7	12.21	28.160	
2,000.0	1,970.0	1,952.6	1,884.4	6.7	9.0	124.19	236.1	198.3	376.6	363.6	12.93	29.123	
2,100.0	2,068.1	2,042.8	1,968.6	7.0	9.6	122.62	259.6	220.8	411.1	397.5	13.65	30.126	
2,200.0	2,166.2	2,138.2	2,057.7	7.4	10.3	121.24	284.2	244.3	445.7	431.4	14.38	30.998	
2,300.0	2,264.2	2,230.6	2,144.0	7.8	10.9	120.09	308.1	267.0	480.4	465.4	15.10	31.820	
2,400.0	2,362.3	2,331.9	2,238.8	8.2	11.5	119.01	334.2	291.4	514.8	499.0	15.84	32.506	
2,500.0	2,460.4	2,436.3	2,337.1	8.6	12.1	118.13	360.5	314.6	547.5	530.9	16.59	33.006	
2,600.0	2,558.4	2,534.0	2,429.5	9.0	12.7	117.45	384.5	335.2	579.2	561.9	17.31	33.467	
2,700.0	2,656.5	2,630.7	2,521.2	9.4	13.3	116.90	407.8	355.3	610.4	592.4	18.02	33.875	
2,800.0	2,754.6	2,725.3	2,611.1	9.7	13.8	116.45	430.2	374.8	641.6	622.9	18.72	34.271	
2,900.0	2,852.6	2,813.9	2,695.1	10.1	14.4	116.08	451.1	393.4	673.2	653.8	19.42	34.665	
3,000.0	2,950.7	2,899.6	2,776.0	10.5	14.9	115.67	472.3	412.4	706.0	685.9	20.11	35.109	
3,100.0	3,048.8	2,997.8	2,868.5	10.9	15.5	115.21	496.8	434.5	739.2	718.4	20.83	35.493	
3,200.0	3,146.8	3,097.5	2,962.6	11.3	16.1	114.84	521.1	456.2	771.8	750.2	21.55	35.810	
3,300.0	3,244.9	3,188.6	3,048.9	11.7	16.7	114.58	542.7	475.9	804.0	781.8	22.24	36.159	
3,400.0	3,343.0	3,266.7	3,122.8	12.0	17.1	114.44	560.3	493.9	837.6	814.8	22.86	36.639	
3,500.0	3,441.0	3,358.2	3,209.3	12.4	17.7	114.36	580.0	516.4	872.5	848.9	23.54	37.068	
3,600.0	3,539.1	3,453.8	3,299.8	12.8	18.3	114.31	600.3	539.8	907.2	883.0	24.23	37.446	
3,700.0	3,637.2	3,550.3	3,391.2	13.2	18.8	114.28	620.5	563.1	941.7	916.7	24.92	37.795	
3,800.0	3,735.2	3,645.7	3,481.7	13.6	19.4	114.26	640.1	586.1	975.9	950.3	25.61	38.112	
3,900.0	3,833.3	3,736.9	3,568.2	14.0	19.9	114.24	659.2	608.0	1,010.2	983.9	26.29	38.423	
4,000.0	3,931.4	3,826.6	3,653.0	14.4	20.5	114.19	678.4	629.8	1,044.8	1,017.8	26.96	38.748	
4,100.0	4,029.4	3,909.2	3,731.0	14.7	21.0	114.15	695.9	650.5	1,080.1	1,052.5	27.60	39.139	

Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-136.79	-133.3	-125.2	182.9				
100.0	100.0	100.2	100.2	0.1	0.2	-136.78	-133.3	-125.2	182.9	182.6	0.30	616.140	
200.0	200.0	200.3	200.3	0.3	0.3	-136.74	-133.1	-125.2	182.7	182.1	0.63	289.132	
215.0	215.0	215.3	215.3	0.3	0.3	-104.80	-133.0	-125.2	182.7	182.0	0.68	267.583	CC, ES
300.0	300.0	300.1	300.1	0.5	0.5	-105.51	-132.8	-125.2	183.2	182.2	0.98	187.234	
400.0	399.6	397.9	397.9	0.7	0.7	-107.78	-133.2	-125.2	185.8	184.4	1.37	136.066	
500.0	498.8	494.4	494.3	1.0	0.8	-111.12	-134.3	-126.5	191.9	190.1	1.80	106.514	
600.0	597.1	590.0	590.0	1.3	1.0	-115.50	-136.4	-128.2	202.0	199.7	2.28	88.653	
700.0	695.2	682.7	682.6	1.7	1.2	-120.07	-140.3	-129.9	215.9	213.1	2.74	78.713	
800.0	793.2	775.3	774.9	2.1	1.4	-124.02	-146.1	-132.8	233.5	230.3	3.19	73.124	
900.0	891.3	870.3	869.6	2.5	1.6	-127.37	-153.1	-136.8	253.4	249.8	3.64	69.696	
1,000.0	989.4	961.8	960.7	2.8	1.8	-129.85	-160.1	-142.2	274.9	270.9	4.07	67.503	
1,100.0	1,087.4	1,049.3	1,047.4	3.2	2.0	-131.57	-168.9	-149.6	299.7	295.2	4.51	66.450	
1,200.0	1,185.5	1,135.5	1,132.4	3.6	2.3	-132.70	-179.6	-159.2	327.7	322.7	4.96	66.069	SF
1,300.0	1,283.6	1,220.7	1,215.8	4.0	2.6	-133.38	-192.2	-170.9	358.6	353.2	5.42	66.135	
1,400.0	1,381.6	1,305.5	1,298.4	4.4	2.9	-133.88	-206.8	-183.4	392.0	386.1	5.89	66.538	
1,500.0	1,479.7	1,384.0	1,374.4	4.7	3.2	-134.29	-222.3	-195.4	428.1	421.7	6.35	67.407	
1,600.0	1,577.8	1,474.6	1,461.6	5.1	3.7	-134.56	-241.8	-210.5	466.0	459.1	6.87	67.833	
1,700.0	1,675.8	1,564.6	1,547.7	5.5	4.1	-134.57	-261.6	-227.4	504.7	497.3	7.39	68.251	
1,800.0	1,773.9	1,662.3	1,641.3	5.9	4.6	-134.49	-282.4	-246.5	543.0	535.1	7.96	68.243	
1,900.0	1,872.0	1,756.9	1,732.0	6.3	5.1	-134.38	-301.7	-265.1	580.5	572.0	8.51	68.180	
2,000.0	1,970.0	1,842.8	1,814.2	6.7	5.6	-134.26	-319.6	-282.4	618.6	609.5	9.06	68.296	
2,100.0	2,068.1	1,928.6	1,896.0	7.0	6.0	-134.15	-338.4	-300.0	657.6	648.0	9.60	68.505	
2,200.0	2,166.2	2,018.2	1,981.4	7.4	6.5	-134.02	-358.4	-318.6	697.2	687.0	10.16	68.620	
2,300.0	2,264.2	2,108.7	2,067.4	7.8	7.0	-133.90	-378.9	-337.7	737.1	726.4	10.72	68.732	
2,400.0	2,362.3	2,219.1	2,172.6	8.2	7.6	-133.68	-402.4	-361.5	775.9	764.5	11.38	68.167	
2,500.0	2,460.4	2,321.0	2,270.0	8.6	8.2	-133.39	-421.7	-384.6	812.7	800.7	12.03	67.575	
2,600.0	2,558.4	2,405.0	2,350.0	9.0	8.7	-133.10	-437.6	-404.6	849.8	837.2	12.64	67.256	
2,700.0	2,656.5	2,488.2	2,428.9	9.4	9.2	-132.77	-453.9	-425.5	888.0	874.7	13.24	67.067	
2,800.0	2,754.6	2,568.1	2,504.3	9.7	9.7	-132.43	-470.2	-446.3	927.2	913.4	13.81	67.123	
2,900.0	2,852.6	2,643.7	2,575.5	10.1	10.2	-132.22	-487.2	-465.0	967.8	953.5	14.34	67.468	
3,000.0	2,950.7	2,727.1	2,654.1	10.5	10.7	-132.13	-507.6	-484.0	1,009.8	994.9	14.89	67.807	
3,100.0	3,048.8	2,825.8	2,747.5	10.9	11.2	-132.14	-531.7	-504.8	1,051.5	1,036.0	15.47	67.968	
3,200.0	3,146.8	2,908.0	2,825.4	11.3	11.7	-132.22	-552.6	-520.9	1,093.5	1,077.5	15.99	68.400	

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

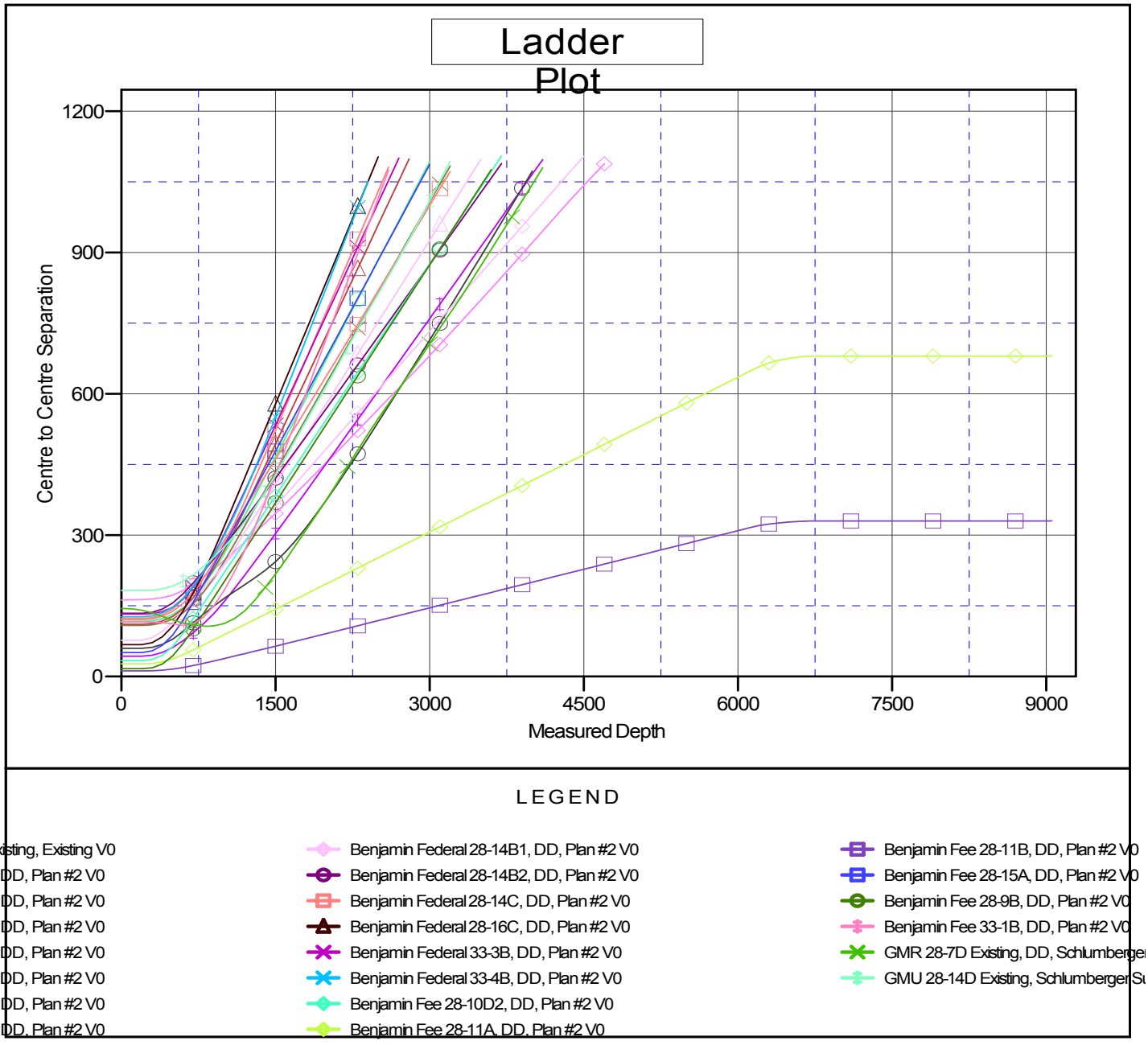
Cathedral Energy Services

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	**Local Co-ordinate Reference:**	Well Benjamin Fee 28-6C
Project:	Mamm Creek	**TVD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Reference Site:	K28NW Pad	**MD Reference:**	WELL @ 5965.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Benjamin Fee 28-6C	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #2	**Offset TVD Reference:**	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 28-6C
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.44°



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