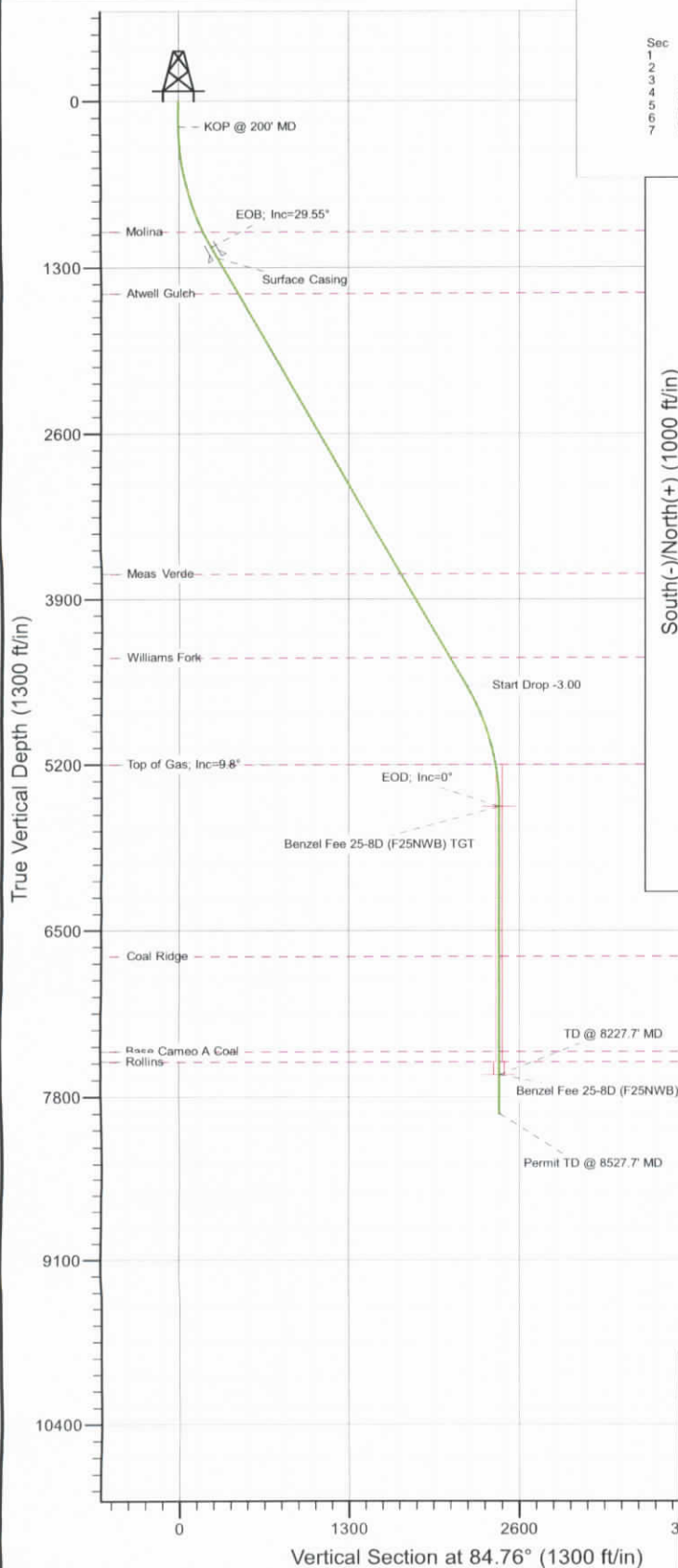
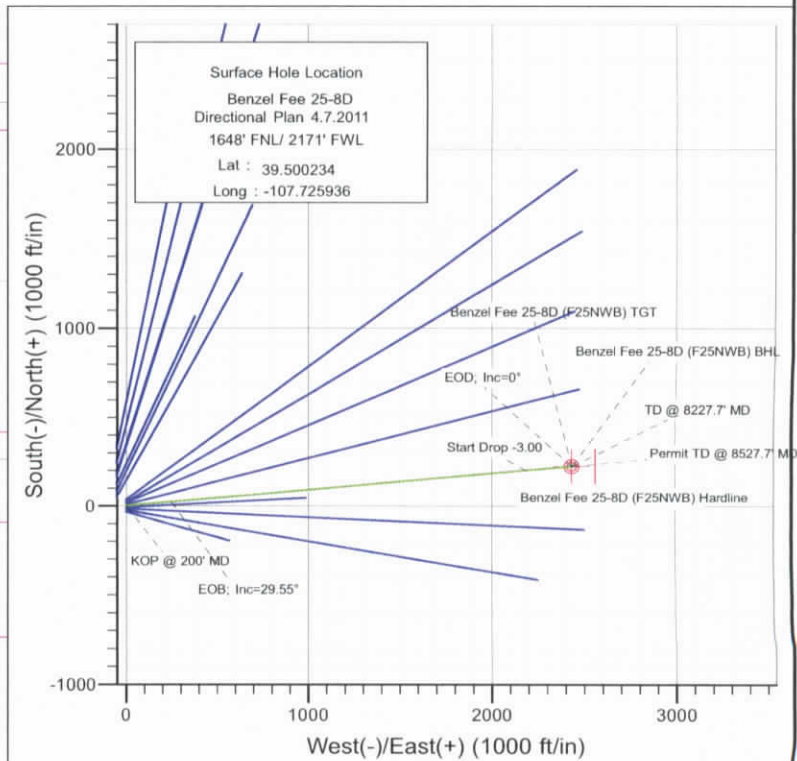




Project: Mamm Creek
 Site: F25NWB Pad
 Well: Benzal Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011
 Wellbore: DD
 Design: Plan #1



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	1184.9	29.55	84.76	1141.8	22.7	247.3	3.00	84.76	248.4	
4	5141.8	29.55	84.76	4584.2	200.7	2190.4	0.00	0.00	2199.6	
5	6126.7	0.00	0.00	5526.0	223.4	2437.8	3.00	180.00	2448.0	Benzal Fee 25-8D (F25NWB) TGT
6	8227.7	0.00	0.00	7627.0	223.4	2437.8	0.00	0.00	2448.0	Benzal Fee 25-8D (F25NWB) BHL
7	8527.7	0.00	0.00	7927.0	223.4	2437.8	0.00	0.00	2448.0	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1019.0	1046.4	Molina
1505.0	1602.4	Atwell Gulch
3700.0	4125.5	Meas Verde
4364.0	4888.7	Williams Fork
5201.0	5800.1	Top of Gas, Inc=9.8°
6704.0	7304.7	Coal Ridge
7445.0	8045.7	Base Cameo A Coal
7527.0	8127.7	Rollins



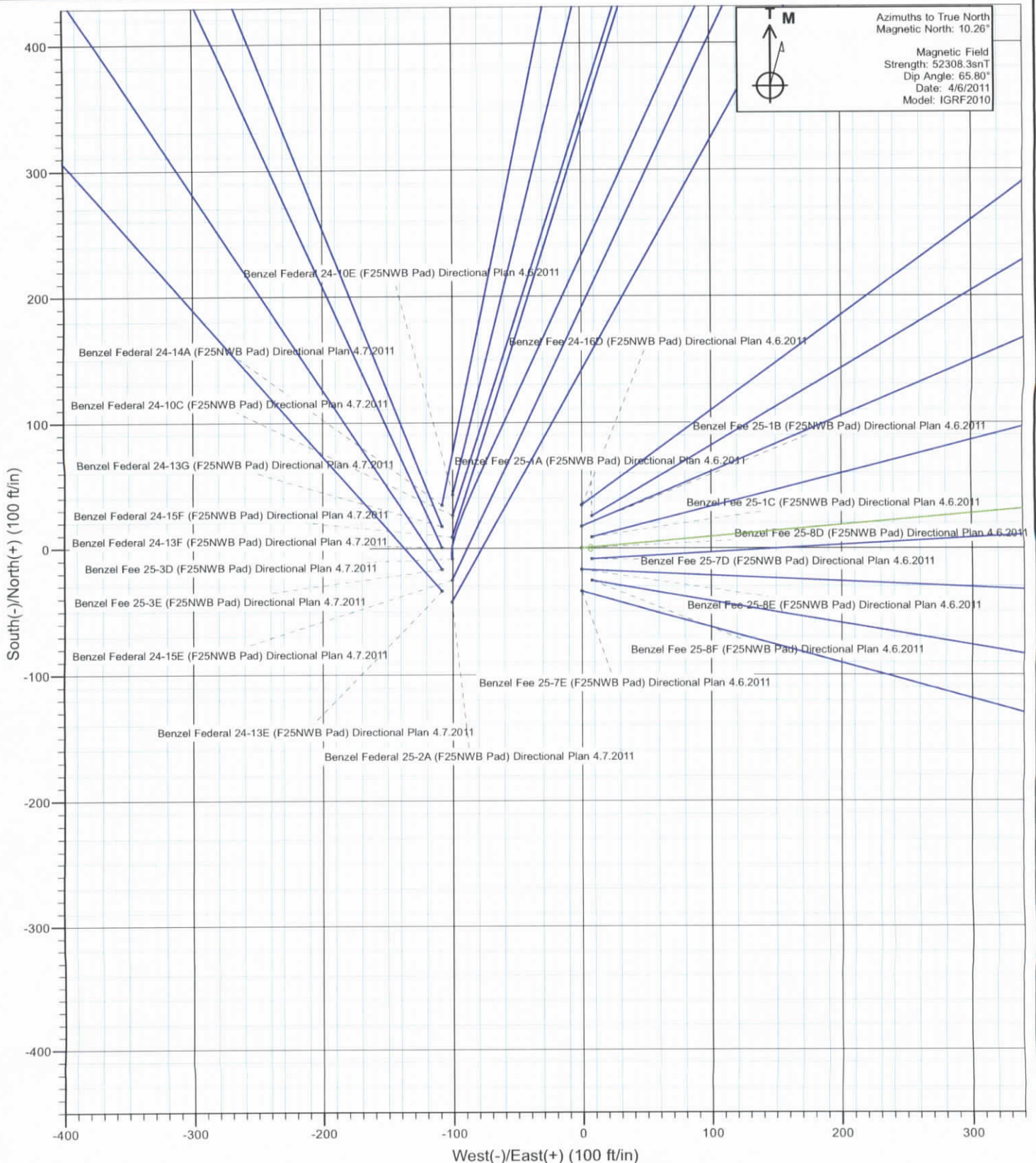
Azimuths to True North
 Magnetic North: 10.26°

Magnetic Field
 Strength: 52308.3snT
 Dip Angle: 65.80°
 Date: 4/6/2011
 Model: IGRF2010

Plan #1 Benzal Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011 115XXX; BH						
KBE @ 5847.0ft (Original Well Elev) North American Datum 1983						
Well Benzal Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011, True North						
Type	Target	Azimuth	Origin	Type	N/S	E/W From TVD
Target	Benzal Fee 25-8D (F25NWB) BHL	84.76	Slot	0.0	0.0	0.0
Name		TVD	+N/-S	+E/-W	Latitude	Longitude
Benzal Fee 25-8D (F25NWB) Hardline	-7627.0	223.4	2437.8	39.500847	-107.717297	
Benzal Fee 25-8D (F25NWB) TGT	5526.0	223.4	2437.8	39.500847	-107.717297	
Benzal Fee 25-8D (F25NWB) BHL	7627.0	223.4	2437.8	39.500847	-107.717297	

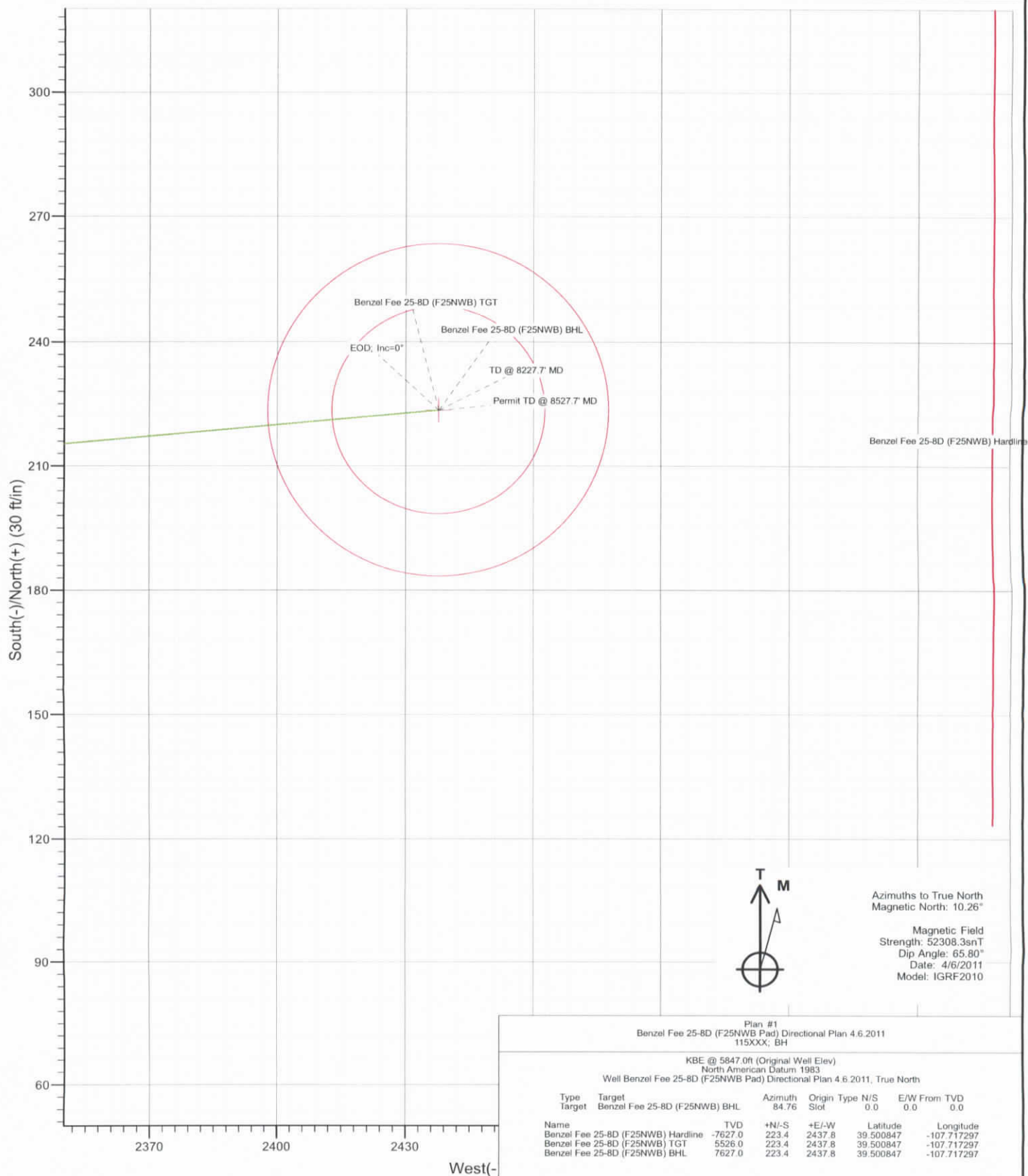


Project: Mamm Creek
Site: F25NWB Pad
Well: Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011
Wellbore: DD
Design: Plan #1





Project: Mamm Creek
 Site: F25NWB Pad
 Well: Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011
 Wellbore: DD
 Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Benzel Fee 25-8D (F25NWB Pad) Direction
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 5847.0ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 5847.0ft (Original Well Elev)
Site:	F25NWB Pad	North Reference:	True
Well:	Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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	F25NWB Pad		
Site Position:		Northing:	1,614,821.30 ft
From:	Lat/Long	Easting:	2,371,946.03 ft
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in
		Latitude:	39.500328
		Longitude:	-107.725936
		Grid Convergence:	-1.40 °

Well	Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.2011					
Well Position	+N/-S	0.0 ft	Northing:	1,614,787.07 ft	Latitude:	39.500234
	+E/-W	0.0 ft	Easting:	2,371,945.19 ft	Longitude:	-107.725936
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,825.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/6/2011	10.26	65.80	52,308

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	84.76

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,184.9	29.55	84.76	1,141.8	22.7	247.3	3.00	3.00	0.00	84.76	
5,141.8	29.55	84.76	4,584.2	200.7	2,190.4	0.00	0.00	0.00	0.00	
6,126.7	0.00	0.00	5,526.0	223.4	2,437.8	3.00	-3.00	0.00	180.00	Benzel Fee 25-8D (F25NWB Pad)
8,227.7	0.00	0.00	7,627.0	223.4	2,437.8	0.00	0.00	0.00	0.00	Benzel Fee 25-8D (F25NWB Pad)
8,527.7	0.00	0.00	7,927.0	223.4	2,437.8	0.00	0.00	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Benzel Fee 25-8D (F25NWB Pad) Direction
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 5847.0ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 5847.0ft (Original Well Elev)
Site:	F25NWB Pad	North Reference:	True
Well:	Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	Benzel Fee 25-8D (F25NWB) Hardline
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	84.76	300.0	0.2	2.6	2.6	3.00	3.00	
400.0	6.00	84.76	399.6	1.0	10.4	10.5	3.00	3.00	
500.0	9.00	84.76	498.8	2.1	23.4	23.5	3.00	3.00	
600.0	12.00	84.76	597.1	3.8	41.6	41.7	3.00	3.00	
700.0	15.00	84.76	694.3	5.9	64.8	65.1	3.00	3.00	
800.0	18.00	84.76	790.2	8.5	93.1	93.5	3.00	3.00	
900.0	21.00	84.76	884.4	11.6	126.3	126.9	3.00	3.00	
1,000.0	24.00	84.76	976.8	15.1	164.4	165.1	3.00	3.00	
1,046.4	25.39	84.76	1,019.0	16.8	183.7	184.5	3.00	3.00	Molina
1,100.0	27.00	84.76	1,067.1	19.0	207.3	208.2	3.00	3.00	
1,184.9	29.55	84.76	1,141.8	22.7	247.3	248.4	3.00	3.00	EOB; Inc=29.55°
1,200.0	29.55	84.76	1,155.0	23.3	254.8	255.8	0.00	0.00	
1,280.0	29.55	84.76	1,224.6	26.9	294.0	295.3	0.00	0.00	Surface Casing
1,300.0	29.55	84.76	1,242.0	27.8	303.9	305.1	0.00	0.00	
1,400.0	29.55	84.76	1,329.0	32.3	353.0	354.4	0.00	0.00	
1,500.0	29.55	84.76	1,415.9	36.8	402.1	403.8	0.00	0.00	
1,600.0	29.55	84.76	1,502.9	41.3	451.2	453.1	0.00	0.00	
1,602.4	29.55	84.76	1,505.0	41.5	452.3	454.2	0.00	0.00	Atwell Gulch
1,700.0	29.55	84.76	1,589.9	45.8	500.3	502.4	0.00	0.00	
1,800.0	29.55	84.76	1,676.9	50.3	549.4	551.7	0.00	0.00	
1,900.0	29.55	84.76	1,763.9	54.8	598.5	601.0	0.00	0.00	
2,000.0	29.55	84.76	1,850.9	59.3	647.6	650.3	0.00	0.00	
2,100.0	29.55	84.76	1,937.9	63.8	696.7	699.6	0.00	0.00	
2,200.0	29.55	84.76	2,024.9	68.3	745.8	748.9	0.00	0.00	
2,300.0	29.55	84.76	2,111.9	72.8	794.9	798.3	0.00	0.00	
2,400.0	29.55	84.76	2,198.9	77.3	844.0	847.6	0.00	0.00	
2,500.0	29.55	84.76	2,285.9	81.8	893.1	896.9	0.00	0.00	
2,600.0	29.55	84.76	2,372.9	86.3	942.2	946.2	0.00	0.00	
2,700.0	29.55	84.76	2,459.9	90.9	991.3	995.5	0.00	0.00	
2,800.0	29.55	84.76	2,546.9	95.4	1,040.5	1,044.8	0.00	0.00	
2,900.0	29.55	84.76	2,633.9	99.9	1,089.6	1,094.1	0.00	0.00	
3,000.0	29.55	84.76	2,720.9	104.4	1,138.7	1,143.4	0.00	0.00	
3,100.0	29.55	84.76	2,807.9	108.9	1,187.8	1,192.8	0.00	0.00	
3,200.0	29.55	84.76	2,894.9	113.4	1,236.9	1,242.1	0.00	0.00	
3,300.0	29.55	84.76	2,981.9	117.9	1,286.0	1,291.4	0.00	0.00	
3,400.0	29.55	84.76	3,068.9	122.4	1,335.1	1,340.7	0.00	0.00	
3,500.0	29.55	84.76	3,155.9	126.9	1,384.2	1,390.0	0.00	0.00	
3,600.0	29.55	84.76	3,242.9	131.4	1,433.3	1,439.3	0.00	0.00	
3,700.0	29.55	84.76	3,329.9	135.9	1,482.4	1,488.6	0.00	0.00	
3,800.0	29.55	84.76	3,416.9	140.4	1,531.5	1,537.9	0.00	0.00	
3,900.0	29.55	84.76	3,503.9	144.9	1,580.6	1,587.2	0.00	0.00	
4,000.0	29.55	84.76	3,590.8	149.4	1,629.7	1,636.6	0.00	0.00	
4,100.0	29.55	84.76	3,677.8	153.9	1,678.8	1,685.9	0.00	0.00	
4,125.5	29.55	84.76	3,700.0	155.0	1,691.3	1,698.4	0.00	0.00	Meas Verde
4,200.0	29.55	84.76	3,764.8	158.4	1,727.9	1,735.2	0.00	0.00	
4,300.0	29.55	84.76	3,851.8	162.9	1,777.0	1,784.5	0.00	0.00	
4,400.0	29.55	84.76	3,938.8	167.4	1,826.2	1,833.8	0.00	0.00	
4,500.0	29.55	84.76	4,025.8	171.9	1,875.3	1,883.1	0.00	0.00	
4,600.0	29.55	84.76	4,112.8	176.4	1,924.4	1,932.4	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Benzel Fee 25-8D (F25NWB Pad) Direction
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 5847.0ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 5847.0ft (Original Well Elev)
Site:	F25NWB Pad	North Reference:	True
Well:	Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,700.0	29.55	84.76	4,199.8	180.9	1,973.5	1,981.7	0.00	0.00	
4,800.0	29.55	84.76	4,286.8	185.4	2,022.6	2,031.1	0.00	0.00	
4,888.7	29.55	84.76	4,364.0	189.3	2,066.1	2,074.8	0.00	0.00	Williams Fork
4,900.0	29.55	84.76	4,373.8	189.9	2,071.7	2,080.4	0.00	0.00	
5,000.0	29.55	84.76	4,460.8	194.4	2,120.8	2,129.7	0.00	0.00	
5,100.0	29.55	84.76	4,547.8	198.9	2,169.9	2,179.0	0.00	0.00	
5,141.8	29.55	84.76	4,584.2	200.7	2,190.4	2,199.6	0.00	0.00	Start Drop -3.00
5,200.0	27.80	84.76	4,635.2	203.3	2,218.2	2,227.5	3.00	-3.00	
5,300.0	24.80	84.76	4,724.9	207.3	2,262.4	2,271.8	3.00	-3.00	
5,400.0	21.80	84.76	4,816.7	210.9	2,301.7	2,311.4	3.00	-3.00	
5,500.0	18.80	84.76	4,910.5	214.1	2,336.3	2,346.1	3.00	-3.00	
5,600.0	15.80	84.76	5,005.9	216.8	2,365.9	2,375.8	3.00	-3.00	
5,700.0	12.80	84.76	5,102.8	219.1	2,390.5	2,400.5	3.00	-3.00	
5,800.0	9.80	84.76	5,200.9	220.9	2,410.0	2,420.1	3.00	-3.00	
5,800.1	9.80	84.76	5,201.0	220.9	2,410.0	2,420.1	0.00	0.00	Top of Gas; Inc=9.8°
5,900.0	6.80	84.76	5,299.8	222.2	2,424.4	2,434.5	3.00	-3.00	
6,000.0	3.80	84.76	5,399.4	223.0	2,433.6	2,443.8	3.00	-3.00	
6,100.0	0.80	84.76	5,499.3	223.4	2,437.6	2,447.8	3.00	-3.00	
6,126.7	0.00	0.00	5,526.0	223.4	2,437.8	2,448.0	3.00	-3.00	EOD; Inc=0° - Benzel Fee 25-8D (F25NWB) TC
6,200.0	0.00	0.00	5,599.3	223.4	2,437.8	2,448.0	0.00	0.00	
6,300.0	0.00	0.00	5,699.3	223.4	2,437.8	2,448.0	0.00	0.00	
6,400.0	0.00	0.00	5,799.3	223.4	2,437.8	2,448.0	0.00	0.00	
6,500.0	0.00	0.00	5,899.3	223.4	2,437.8	2,448.0	0.00	0.00	
6,600.0	0.00	0.00	5,999.3	223.4	2,437.8	2,448.0	0.00	0.00	
6,700.0	0.00	0.00	6,099.3	223.4	2,437.8	2,448.0	0.00	0.00	
6,800.0	0.00	0.00	6,199.3	223.4	2,437.8	2,448.0	0.00	0.00	
6,900.0	0.00	0.00	6,299.3	223.4	2,437.8	2,448.0	0.00	0.00	
7,000.0	0.00	0.00	6,399.3	223.4	2,437.8	2,448.0	0.00	0.00	
7,100.0	0.00	0.00	6,499.3	223.4	2,437.8	2,448.0	0.00	0.00	
7,200.0	0.00	0.00	6,599.3	223.4	2,437.8	2,448.0	0.00	0.00	
7,300.0	0.00	0.00	6,699.3	223.4	2,437.8	2,448.0	0.00	0.00	
7,304.7	0.00	0.00	6,704.0	223.4	2,437.8	2,448.0	0.00	0.00	Coal Ridge
7,400.0	0.00	0.00	6,799.3	223.4	2,437.8	2,448.0	0.00	0.00	
7,500.0	0.00	0.00	6,899.3	223.4	2,437.8	2,448.0	0.00	0.00	
7,600.0	0.00	0.00	6,999.3	223.4	2,437.8	2,448.0	0.00	0.00	
7,700.0	0.00	0.00	7,099.3	223.4	2,437.8	2,448.0	0.00	0.00	
7,800.0	0.00	0.00	7,199.3	223.4	2,437.8	2,448.0	0.00	0.00	
7,900.0	0.00	0.00	7,299.3	223.4	2,437.8	2,448.0	0.00	0.00	
8,000.0	0.00	0.00	7,399.3	223.4	2,437.8	2,448.0	0.00	0.00	
8,045.7	0.00	0.00	7,445.0	223.4	2,437.8	2,448.0	0.00	0.00	Base Cameo A Coal
8,100.0	0.00	0.00	7,499.3	223.4	2,437.8	2,448.0	0.00	0.00	
8,127.7	0.00	0.00	7,527.0	223.4	2,437.8	2,448.0	0.00	0.00	Rollins
8,200.0	0.00	0.00	7,599.3	223.4	2,437.8	2,448.0	0.00	0.00	
8,227.7	0.00	0.00	7,627.0	223.4	2,437.8	2,448.0	0.00	0.00	TD @ 8227.7' MD - Benzel Fee 25-8D (F25NW
8,300.0	0.00	0.00	7,699.3	223.4	2,437.8	2,448.0	0.00	0.00	
8,400.0	0.00	0.00	7,799.3	223.4	2,437.8	2,448.0	0.00	0.00	
8,500.0	0.00	0.00	7,899.3	223.4	2,437.8	2,448.0	0.00	0.00	
8,527.7	0.00	0.00	7,927.0	223.4	2,437.8	2,448.0	0.00	0.00	Permit TD @ 8527.7' MD

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Benzel Fee 25-8D (F25NWB Pad) Direction
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 5847.0ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 5847.0ft (Original Well Elev)
Site:	F25NWB Pad	North Reference:	True
Well:	Benzel Fee 25-8D (F25NWB Pad) Directional Plan 4.6.	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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
Benzel Fee 25-8D (F25NWB Pad) - plan hits target center - Circle (radius 25.0)	0.00	0.00	5,526.0	223.4	2,437.8	1,614,950.68	2,374,387.70	39.500847	-107.717297
Benzel Fee 25-8D (F25NWB Pad) - plan misses target center by 8010.2ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E) - Polygon	0.00	0.00	-7,627.0	223.4	2,437.8	1,614,950.68	2,374,387.70	39.500847	-107.717297
Point 1			-7,627.0	100.0	130.0	1,615,047.46	2,374,520.11		
Point 2			-7,627.0	-100.0	130.0	1,614,847.52	2,374,515.21		
Benzel Fee 25-8D (F25NWB Pad) - plan hits target center - Circle (radius 40.0)	0.00	0.00	7,627.0	223.4	2,437.8	1,614,950.68	2,374,387.70	39.500847	-107.717297

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,280.0	1,224.6	Surface Casing	0.000	0.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,046.4	1,019.0	Molina		0.00	
1,602.4	1,505.0	Atwell Gulch		0.00	
4,125.5	3,700.0	Meas Verde		0.00	
4,888.7	4,364.0	Williams Fork		0.00	
5,800.1	5,201.0	Top of Gas; Inc=9.8°		0.00	
7,304.7	6,704.0	Coal Ridge		0.00	
8,045.7	7,445.0	Base Cameo A Coal		0.00	
8,127.7	7,527.0	Rollins		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200' MD
1,184.9	1,141.8	22.7	247.3	EOB; Inc=29.55°
5,141.8	4,584.2	200.7	2,190.4	Start Drop -3.00
6,126.7	5,526.0	223.4	2,437.8	EOD; Inc=0°
8,227.7	7,627.0	223.4	2,437.8	TD @ 8227.7' MD
8,527.7	7,927.0	223.4	2,437.8	Permit TD @ 8527.7' MD