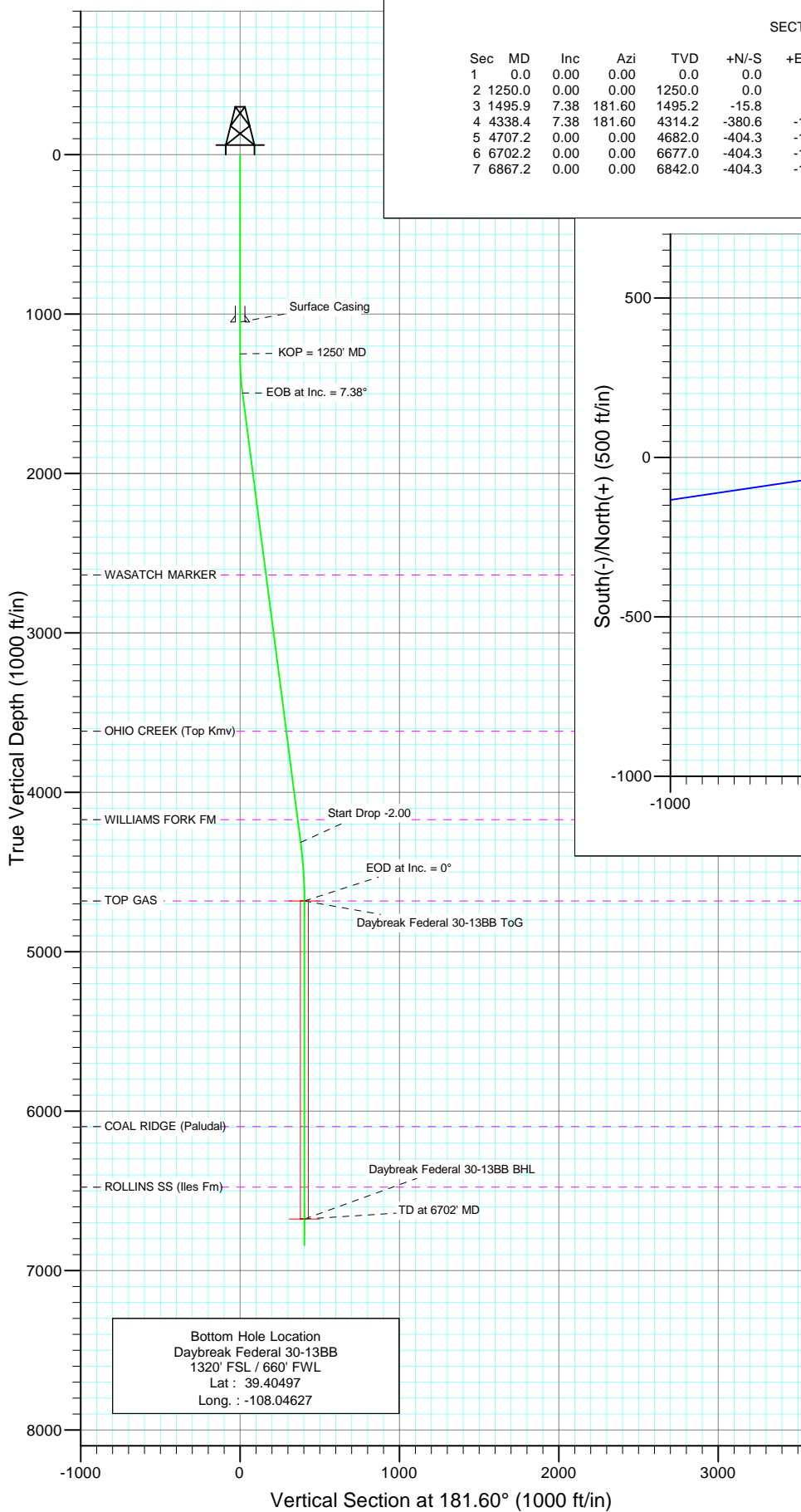


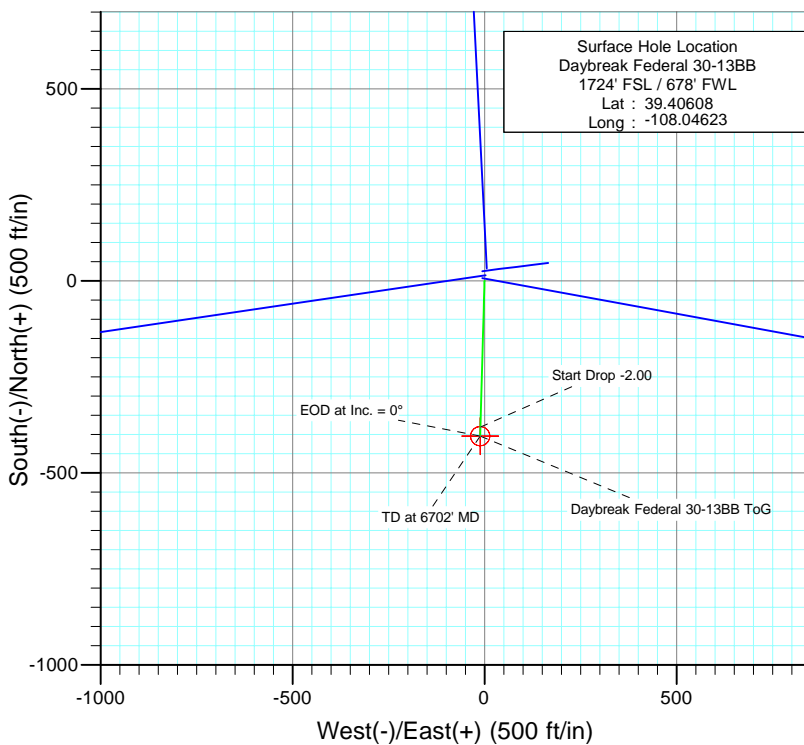


Project: Mamm Creek  
Site: S30-T7S-R95W (PL30 Pad)  
Well: Daybreak Federal 30-13BB  
Wellbore: DD  
Design: Plan #1



#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1250.0	0.00	0.00	1250.0	0.0	0.0	0.00	0.00	0.0	
3	1495.9	7.38	181.60	1495.2	-15.8	-0.4	3.00	181.60	15.8	
4	4338.4	7.38	181.60	4314.2	-380.6	-10.6	0.00	0.00	380.7	
5	4707.2	0.00	0.00	4682.0	-404.3	-11.3	2.00	180.00	404.4	Daybreak Federal 30-13BB ToG
6	6702.2	0.00	0.00	6677.0	-404.3	-11.3	0.00	0.00	404.4	Daybreak Federal 30-13BB BHL
7	6867.2	0.00	0.00	6842.0	-404.3	-11.3	0.00	0.00	404.4	



#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2637.0	2647.2	WASATCH MARKER
3617.0	3635.4	OHIO CREEK (Top Kmv)
4172.0	4195.0	WILLIAMS FORK FM
4682.0	4707.2	TOP GAS
6097.0	6122.2	COAL RIDGE (Paludal)
6477.0	6502.2	ROLLINS SS (Iles Fm)



Azimuths to True North  
Magnetic North: 10.51°

Magnetic Field  
Strength: 52351.4snT  
Dip Angle: 65.70°  
Date: 3/1/2010  
Model: IGRF200510

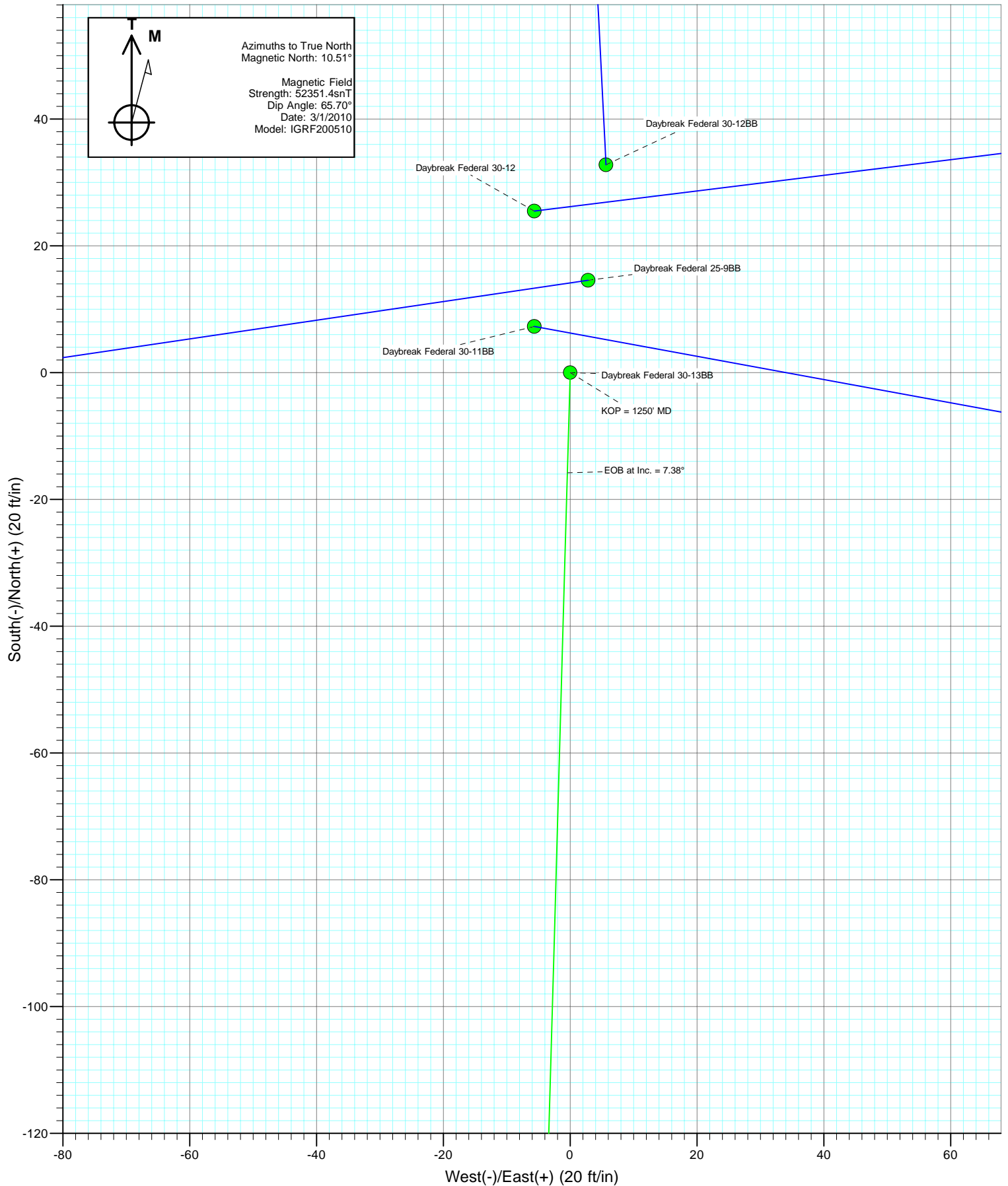
#### DESIGN DETAILS: Plan #1

Job #10xxx: KR  
KBE @ 6242.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
Daybreak Federal 30-13BB BHL	181.60	Slot	0.0	0.0	0.0

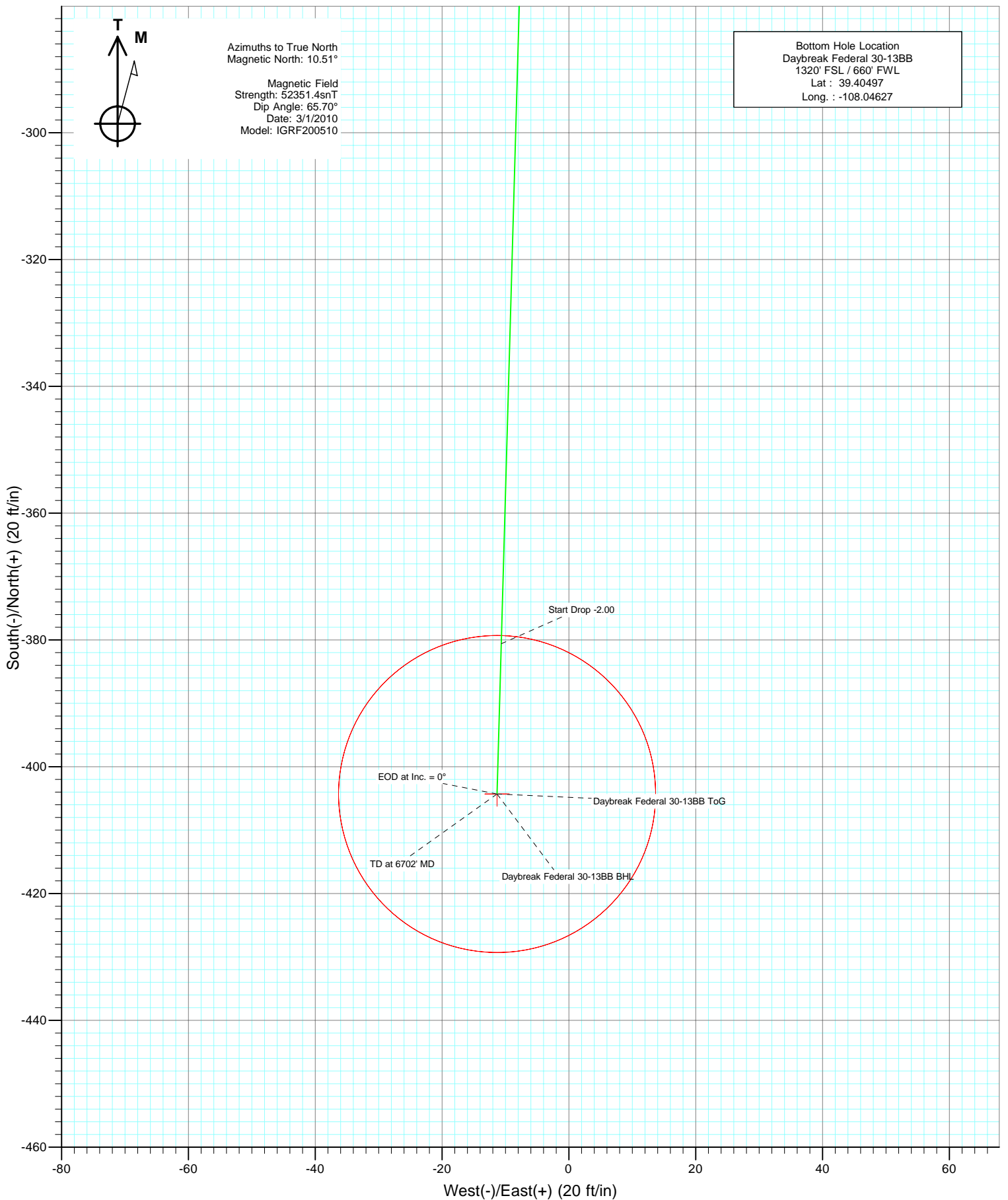


Project: Mamm Creek  
Site: S30-T7S-R95W (PL30 Pad)  
Well: Daybreak Federal 30-13BB  
Wellbore: DD  
Design: Plan #1





Project: Mamm Creek  
Site: S30-T7S-R95W (PL30 Pad)  
Well: Daybreak Federal 30-13BB  
Wellbore: DD  
Design: Plan #1



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Daybreak Federal 30-13BB
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Project:</b>	Mamm Creek	<b>MD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Site:</b>	S30-T7S-R95W (PL30 Pad)	<b>North Reference:</b>	True
<b>Well:</b>	Daybreak Federal 30-13BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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		S30-T7S-R95W (PL30 Pad)			
Site Position:		Northing:	1,582,912.49 ft	Latitude:	39.406170
From:	Lat/Long	Easting:	2,280,640.05 ft	Longitude:	-108.046210
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.61 °

Well	Daybreak Federal 30-13BB					
Well Position	+N/-S	0.0 ft	Northing:	1,582,879.87 ft	Latitude:	39.406080
	+E/-W	0.0 ft	Easting:	2,280,633.48 ft	Longitude:	-108.046230
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,220.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	3/1/2010	10.51	65.70	52,351

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	181.60

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	
1,250.0	0.00	0.00	1,250.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,495.9	7.38	181.60	1,495.2	-15.8	-0.4	3.00	3.00	0.00	181.60	
4,338.4	7.38	181.60	4,314.2	-380.6	-10.6	0.00	0.00	0.00	0.00	
4,707.2	0.00	0.00	4,682.0	-404.3	-11.3	2.00	-2.00	0.00	180.00	Daybreak Federal 30-
6,702.2	0.00	0.00	6,677.0	-404.3	-11.3	0.00	0.00	0.00	0.00	Daybreak Federal 30-
6,867.2	0.00	0.00	6,842.0	-404.3	-11.3	0.00	0.00	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Daybreak Federal 30-13BB
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Project:</b>	Mamm Creek	<b>MD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Site:</b>	S30-T7S-R95W (PL30 Pad)	<b>North Reference:</b>	True
<b>Well:</b>	Daybreak Federal 30-13BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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	
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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,050.0	0.00	0.00	1,050.0	0.0	0.0	0.0	0.00	0.00	Surface Casing
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	
1,250.0	0.00	0.00	1,250.0	0.0	0.0	0.0	0.00	0.00	KOP = 1250' MD
1,300.0	1.50	181.60	1,300.0	-0.7	0.0	0.7	3.00	3.00	
1,400.0	4.50	181.60	1,399.8	-5.9	-0.2	5.9	3.00	3.00	
1,495.9	7.38	181.60	1,495.2	-15.8	-0.4	15.8	3.00	3.00	EOB at Inc. = 7.38°
1,500.0	7.38	181.60	1,499.3	-16.3	-0.5	16.3	0.00	0.00	
1,600.0	7.38	181.60	1,598.5	-29.2	-0.8	29.2	0.00	0.00	
1,700.0	7.38	181.60	1,697.6	-42.0	-1.2	42.0	0.00	0.00	
1,800.0	7.38	181.60	1,796.8	-54.8	-1.5	54.8	0.00	0.00	
1,900.0	7.38	181.60	1,896.0	-67.7	-1.9	67.7	0.00	0.00	
2,000.0	7.38	181.60	1,995.1	-80.5	-2.3	80.5	0.00	0.00	
2,100.0	7.38	181.60	2,094.3	-93.3	-2.6	93.4	0.00	0.00	
2,200.0	7.38	181.60	2,193.5	-106.2	-3.0	106.2	0.00	0.00	
2,300.0	7.38	181.60	2,292.7	-119.0	-3.3	119.0	0.00	0.00	
2,400.0	7.38	181.60	2,391.8	-131.8	-3.7	131.9	0.00	0.00	
2,500.0	7.38	181.60	2,491.0	-144.7	-4.0	144.7	0.00	0.00	
2,600.0	7.38	181.60	2,590.2	-157.5	-4.4	157.6	0.00	0.00	
2,647.2	7.38	181.60	2,637.0	-163.6	-4.6	163.6	0.00	0.00	WASATCH MARKER
2,700.0	7.38	181.60	2,689.4	-170.3	-4.8	170.4	0.00	0.00	
2,800.0	7.38	181.60	2,788.5	-183.2	-5.1	183.2	0.00	0.00	
2,900.0	7.38	181.60	2,887.7	-196.0	-5.5	196.1	0.00	0.00	
3,000.0	7.38	181.60	2,986.9	-208.8	-5.8	208.9	0.00	0.00	
3,100.0	7.38	181.60	3,086.0	-221.7	-6.2	221.7	0.00	0.00	
3,200.0	7.38	181.60	3,185.2	-234.5	-6.6	234.6	0.00	0.00	
3,300.0	7.38	181.60	3,284.4	-247.3	-6.9	247.4	0.00	0.00	
3,400.0	7.38	181.60	3,383.6	-260.2	-7.3	260.3	0.00	0.00	
3,500.0	7.38	181.60	3,482.7	-273.0	-7.6	273.1	0.00	0.00	
3,600.0	7.38	181.60	3,581.9	-285.8	-8.0	285.9	0.00	0.00	
3,635.4	7.38	181.60	3,617.0	-290.4	-8.1	290.5	0.00	0.00	OHIO CREEK (Top Kmv)
3,700.0	7.38	181.60	3,681.1	-298.7	-8.3	298.8	0.00	0.00	
3,800.0	7.38	181.60	3,780.3	-311.5	-8.7	311.6	0.00	0.00	
3,900.0	7.38	181.60	3,879.4	-324.3	-9.1	324.5	0.00	0.00	
4,000.0	7.38	181.60	3,978.6	-337.2	-9.4	337.3	0.00	0.00	
4,100.0	7.38	181.60	4,077.8	-350.0	-9.8	350.1	0.00	0.00	
4,195.0	7.38	181.60	4,172.0	-362.2	-10.1	362.3	0.00	0.00	WILLIAMS FORK FM
4,200.0	7.38	181.60	4,176.9	-362.8	-10.1	363.0	0.00	0.00	
4,300.0	7.38	181.60	4,276.1	-375.7	-10.5	375.8	0.00	0.00	
4,338.4	7.38	181.60	4,314.2	-380.6	-10.6	380.7	0.00	0.00	Start Drop -2.00
4,400.0	6.14	181.60	4,375.4	-387.8	-10.8	388.0	2.00	-2.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Daybreak Federal 30-13BB
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Project:</b>	Mamm Creek	<b>MD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Site:</b>	S30-T7S-R95W (PL30 Pad)	<b>North Reference:</b>	True
<b>Well:</b>	Daybreak Federal 30-13BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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
4,500.0	4.14	181.60	4,475.0	-396.8	-11.1	397.0	2.00	-2.00	
4,600.0	2.14	181.60	4,574.8	-402.3	-11.2	402.4	2.00	-2.00	
4,700.0	0.14	181.60	4,674.8	-404.3	-11.3	404.4	2.00	-2.00	
4,707.2	0.00	0.00	4,682.0	-404.3	-11.3	404.4	2.00	-2.00	EOD at Inc. = 0° - TOP GAS - Daybreak Federal 30-13BB
4,800.0	0.00	0.00	4,774.8	-404.3	-11.3	404.4	0.00	0.00	
4,900.0	0.00	0.00	4,874.8	-404.3	-11.3	404.4	0.00	0.00	
5,000.0	0.00	0.00	4,974.8	-404.3	-11.3	404.4	0.00	0.00	
5,100.0	0.00	0.00	5,074.8	-404.3	-11.3	404.4	0.00	0.00	
5,200.0	0.00	0.00	5,174.8	-404.3	-11.3	404.4	0.00	0.00	
5,300.0	0.00	0.00	5,274.8	-404.3	-11.3	404.4	0.00	0.00	
5,400.0	0.00	0.00	5,374.8	-404.3	-11.3	404.4	0.00	0.00	
5,500.0	0.00	0.00	5,474.8	-404.3	-11.3	404.4	0.00	0.00	
5,600.0	0.00	0.00	5,574.8	-404.3	-11.3	404.4	0.00	0.00	
5,700.0	0.00	0.00	5,674.8	-404.3	-11.3	404.4	0.00	0.00	
5,800.0	0.00	0.00	5,774.8	-404.3	-11.3	404.4	0.00	0.00	
5,900.0	0.00	0.00	5,874.8	-404.3	-11.3	404.4	0.00	0.00	
6,000.0	0.00	0.00	5,974.8	-404.3	-11.3	404.4	0.00	0.00	
6,100.0	0.00	0.00	6,074.8	-404.3	-11.3	404.4	0.00	0.00	
6,122.2	0.00	0.00	6,097.0	-404.3	-11.3	404.4	0.00	0.00	COAL RIDGE (Paludal)
6,200.0	0.00	0.00	6,174.8	-404.3	-11.3	404.4	0.00	0.00	
6,300.0	0.00	0.00	6,274.8	-404.3	-11.3	404.4	0.00	0.00	
6,400.0	0.00	0.00	6,374.8	-404.3	-11.3	404.4	0.00	0.00	
6,500.0	0.00	0.00	6,474.8	-404.3	-11.3	404.4	0.00	0.00	
6,502.2	0.00	0.00	6,477.0	-404.3	-11.3	404.4	0.00	0.00	ROLLINS SS (Iles Fm)
6,600.0	0.00	0.00	6,574.8	-404.3	-11.3	404.4	0.00	0.00	
6,700.0	0.00	0.00	6,674.8	-404.3	-11.3	404.4	0.00	0.00	
6,702.2	0.00	0.00	6,677.0	-404.3	-11.3	404.4	0.00	0.00	TD at 6702' MD - Daybreak Federal 30-13BB B
6,800.0	0.00	0.00	6,774.8	-404.3	-11.3	404.4	0.00	0.00	
6,867.2	0.00	0.00	6,842.0	-404.3	-11.3	404.4	0.00	0.00	Permit TD at 6867' MD

### Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Daybreak Federal 30-13	0.00	0.00	4,682.0	-404.3	-11.3	1,582,476.06	2,280,610.85	39.404970	-108.046270
- plan hits target center									
- Point									
Daybreak Federal 30-13	0.00	0.00	6,677.0	-404.3	-11.3	1,582,476.06	2,280,610.85	39.404970	-108.046270
- plan hits target center									
- Circle (radius 25.0)									

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,050.0	1,050.0	Surface Casing	5.500	6.000

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Daybreak Federal 30-13BB
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Project:</b>	Mamm Creek	<b>MD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Site:</b>	S30-T7S-R95W (PL30 Pad)	<b>North Reference:</b>	True
<b>Well:</b>	Daybreak Federal 30-13BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,647.2	2,637.0	WASATCH MARKER				
3,635.4	3,617.0	OHIO CREEK (Top Kmv)				
4,195.0	4,172.0	WILLIAMS FORK FM				
4,707.2	4,682.0	TOP GAS				
6,122.2	6,097.0	COAL RIDGE (Paludal)				
6,502.2	6,477.0	ROLLINS SS (Iles Fm)				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,250.0	1,250.0	0.0	0.0	KOP = 1250' MD	
1,495.9	1,495.2	-15.8	-0.4	EOB at Inc. = 7.38°	
4,338.4	4,314.2	-380.6	-10.6	Start Drop -2.00	
4,707.2	4,682.0	-404.3	-11.3	EOD at Inc. = 0°	
6,702.2	6,677.0	-404.3	-11.3	TD at 6702' MD	
6,867.2	6,842.0	-404.3	-11.3	Permit TD at 6867' MD	

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

**Mamm Creek**

**S30-T7S-R95W (PL30 Pad)**

**Daybreak Federal 30-13BB**

**DD**

**Plan #1**

## **Anticollision Report**

**01 March, 2010**



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Daybreak Federal 30-13BB
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Reference Site:</b>	S30-T7S-R95W (PL30 Pad)	<b>MD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Daybreak Federal 30-13BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	0.0 to 99,999.0ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 100.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	3/1/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	6,866.8	Plan #1 (DD)	MWD	Geolink MWD	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S30-T7S-R95W (PL30 Pad)						
Daybreak Federal 25-9BB - DD - Plan #1	337.0	337.1	14.0	12.9	12.445	CC, ES
Daybreak Federal 25-9BB - DD - Plan #1	400.0	399.8	15.1	13.7	11.030	SF
Daybreak Federal 30-11BB - DD - Plan #1	361.9	362.1	6.1	4.9	5.022	CC, ES, SF
Daybreak Federal 30-12 - DD - Plan #1	1,250.0	1,250.0	26.1	21.8	6.092	CC, ES
Daybreak Federal 30-12 - DD - Plan #1	1,300.0	1,300.0	26.8	22.3	5.998	SF
Daybreak Federal 30-12BB - DD - Plan #1	500.0	500.0	33.3	31.6	19.939	CC, ES
Daybreak Federal 30-12BB - DD - Plan #1	600.0	598.2	35.8	33.8	17.761	SF

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Daybreak Federal 30-13BB
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Reference Site:</b>	S30-T7S-R95W (PL30 Pad)	<b>MD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Daybreak Federal 30-13BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S30-T7S-R95W (PL30 Pad) - Daybreak Federal 25-9BB - DD - Plan #1													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	10.98	14.6	2.8	14.8					
100.0	100.0	100.0	100.0	0.1	0.1	10.98	14.6	2.8	14.8	14.6	0.27	54.507		
200.0	200.0	200.0	200.0	0.3	0.3	10.98	14.6	2.8	14.8	14.2	0.62	23.885		
300.0	300.0	300.2	300.1	0.5	0.5	0.92	14.2	0.2	14.2	13.2	0.98	14.491		
337.0	337.0	337.1	337.0	0.5	0.6	-8.37	13.9	-2.0	14.0	12.9	1.13	12.445 CC, ES		
400.0	400.0	399.8	399.4	0.7	0.7	-29.90	13.0	-7.5	15.1	13.7	1.37	11.030 SF		
500.0	500.0	498.3	497.1	0.8	1.0	-61.00	11.2	-20.2	23.3	21.5	1.72	13.480		
600.0	600.0	595.3	592.5	1.0	1.3	-77.03	8.6	-37.5	39.2	37.2	2.05	19.085		
700.0	700.0	690.2	684.9	1.2	1.8	-84.72	5.5	-59.1	61.2	58.9	2.38	25.707		
800.0	800.0	782.8	773.8	1.4	2.3	-88.83	1.7	-84.5	88.5	85.7	2.71	32.663		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Daybreak Federal 30-13BB
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Reference Site:</b>	S30-T7S-R95W (PL30 Pad)	<b>MD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Daybreak Federal 30-13BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S30-T7S-R95W (PL30 Pad) - Daybreak Federal 30-11BB - DD - Plan #1												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-37.80	7.3	-5.7	9.2				
100.0	100.0	100.0	100.0	0.1	0.1	-37.80	7.3	-5.7	9.2	8.9	0.27	33.862	
200.0	200.0	200.0	200.0	0.3	0.3	-37.80	7.3	-5.7	9.2	8.6	0.62	14.838	
300.0	300.0	300.3	300.2	0.5	0.5	-24.22	6.8	-3.1	7.5	6.5	0.98	7.650	
361.9	361.9	362.1	361.9	0.6	0.6	10.38	6.0	1.1	6.1	4.9	1.22	5.022 CC, ES, SF	
400.0	400.0	400.0	399.6	0.7	0.7	40.68	5.4	4.6	7.1	5.8	1.36	5.232	
500.0	500.0	498.6	497.4	0.8	1.0	79.87	3.1	17.3	17.7	16.0	1.69	10.483	
600.0	600.0	595.7	592.9	1.0	1.3	90.13	-0.1	34.5	35.3	33.2	2.03	17.392	
700.0	700.0	690.7	685.3	1.2	1.8	94.11	-4.0	56.0	58.0	55.7	2.36	24.553	
800.0	800.0	783.3	774.3	1.4	2.3	96.08	-8.7	81.3	85.7	83.0	2.70	31.758	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Daybreak Federal 30-13BB
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Reference Site:</b>	S30-T7S-R95W (PL30 Pad)	<b>MD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Daybreak Federal 30-13BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S30-T7S-R95W (PL30 Pad) - Daybreak Federal 30-12 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-12.50	25.5	-5.7	26.1					
100.0	100.0	100.0	100.0	0.1	0.1	-12.50	25.5	-5.7	26.1	25.8	0.27	95.915		
200.0	200.0	200.0	200.0	0.3	0.3	-12.50	25.5	-5.7	26.1	25.5	0.62	42.030		
300.0	300.0	300.0	300.0	0.5	0.5	-12.50	25.5	-5.7	26.1	25.1	0.97	26.911		
400.0	400.0	400.0	400.0	0.7	0.7	-12.50	25.5	-5.7	26.1	24.8	1.32	19.792		
500.0	500.0	500.0	500.0	0.8	0.8	-12.50	25.5	-5.7	26.1	24.4	1.67	15.651		
600.0	600.0	600.0	600.0	1.0	1.0	-12.50	25.5	-5.7	26.1	24.1	2.02	12.944		
700.0	700.0	700.0	700.0	1.2	1.2	-12.50	25.5	-5.7	26.1	23.7	2.37	11.034		
800.0	800.0	800.0	800.0	1.4	1.4	-12.50	25.5	-5.7	26.1	23.4	2.72	9.616		
900.0	900.0	900.0	900.0	1.5	1.5	-12.50	25.5	-5.7	26.1	23.1	3.06	8.521		
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	-12.50	25.5	-5.7	26.1	22.7	3.41	7.650		
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	-12.50	25.5	-5.7	26.1	22.4	3.76	6.940		
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	-12.50	25.5	-5.7	26.1	22.0	4.11	6.351		
1,250.0	1,250.0	1,250.0	1,250.0	2.1	2.1	-12.50	25.5	-5.7	26.1	21.8	4.29	6.092 CC, ES		
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	166.24	25.5	-5.7	26.8	22.3	4.46	5.998 SF		
1,400.0	1,399.8	1,399.8	1,399.8	2.4	2.4	168.45	25.5	-5.7	31.9	27.1	4.80	6.636		
1,495.9	1,495.2	1,495.2	1,495.2	2.6	2.6	171.14	25.5	-5.7	41.6	36.5	5.12	8.132		
1,500.0	1,499.3	1,499.3	1,499.3	2.6	2.6	171.25	25.5	-5.7	42.1	37.0	5.13	8.211		
1,600.0	1,598.5	1,598.5	1,598.5	2.8	2.8	173.29	25.5	-5.7	54.9	49.4	5.48	10.013		
1,700.0	1,697.6	1,697.6	1,697.6	3.0	2.9	174.56	25.5	-5.7	67.6	61.8	5.83	11.607		
1,800.0	1,796.8	1,796.8	1,796.8	3.3	3.1	175.43	25.5	-5.7	80.4	74.3	6.18	13.025		
1,900.0	1,896.0	1,896.0	1,896.0	3.5	3.3	176.05	25.5	-5.7	93.2	86.7	6.52	14.294		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Daybreak Federal 30-13BB
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Reference Site:</b>	S30-T7S-R95W (PL30 Pad)	<b>MD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Daybreak Federal 30-13BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S30-T7S-R95W (PL30 Pad) - Daybreak Federal 30-12BB - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor	
0.0	0.0	0.0	0.0	0.0	0.0	9.78	32.8	5.7	33.3				
100.0	100.0	100.0	100.0	0.1	0.1	9.78	32.8	5.7	33.3	33.0	0.27	122.189	
200.0	200.0	200.0	200.0	0.3	0.3	9.78	32.8	5.7	33.3	32.6	0.62	53.544	
300.0	300.0	300.0	300.0	0.5	0.5	9.78	32.8	5.7	33.3	32.3	0.97	34.283	
400.0	400.0	400.0	400.0	0.7	0.7	9.78	32.8	5.7	33.3	31.9	1.32	25.214	
500.0	500.0	500.0	500.0	0.8	0.8	9.78	32.8	5.7	33.3	31.6	1.67	19.939 CC, ES	
600.0	600.0	598.2	598.2	1.0	1.0	8.89	35.3	5.5	35.8	33.8	2.01	17.761 SF	
700.0	700.0	696.0	695.6	1.2	1.2	6.86	42.8	5.2	43.3	41.0	2.36	18.366	
800.0	800.0	792.7	791.5	1.4	1.4	4.71	55.1	4.5	56.0	53.3	2.70	20.698	
900.0	900.0	890.0	887.4	1.5	1.7	2.97	71.6	3.7	72.8	69.7	3.05	23.879	
1,000.0	1,000.0	988.4	984.4	1.7	2.0	1.85	88.7	2.9	90.1	86.7	3.39	26.546	

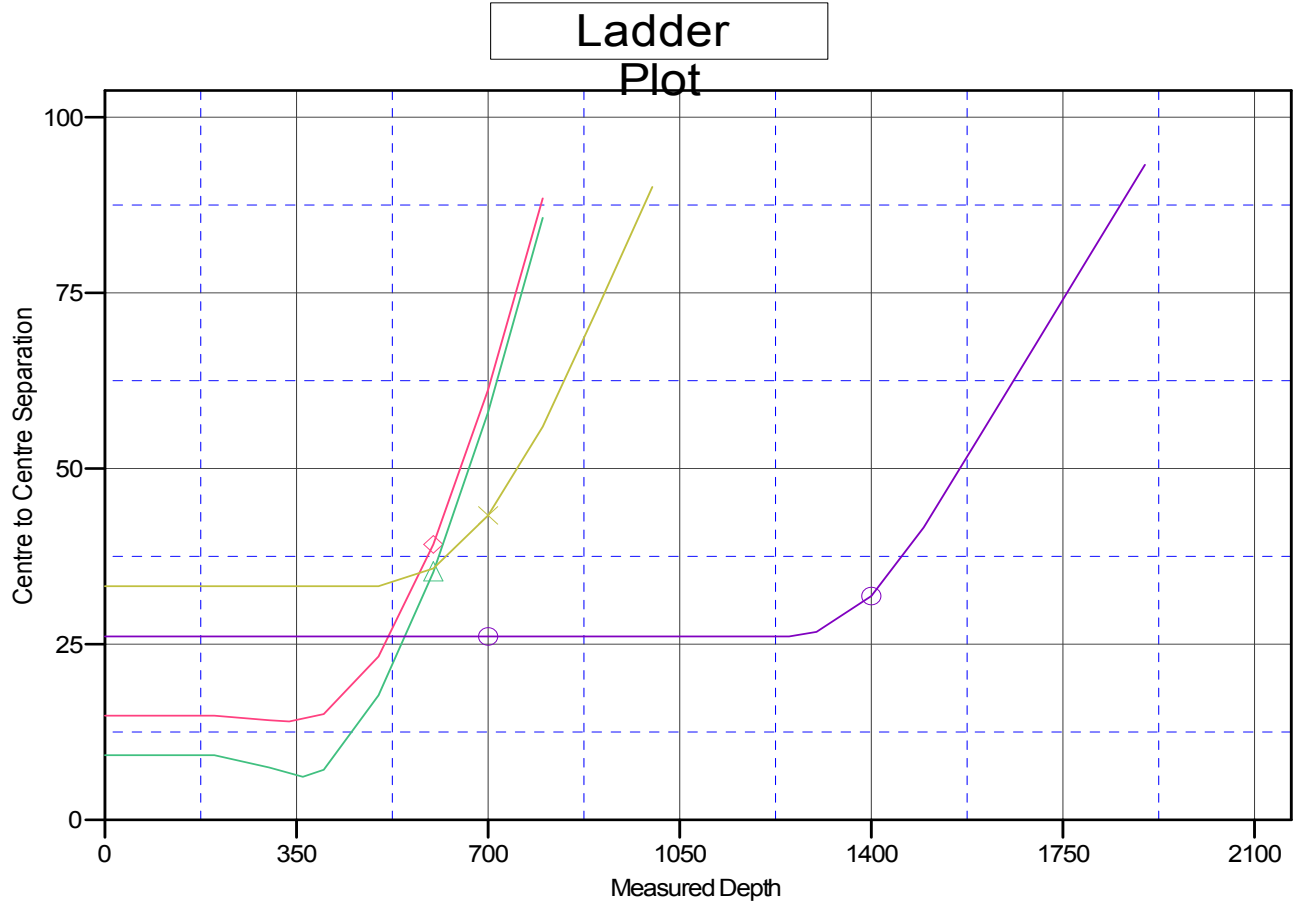
# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Daybreak Federal 30-13BB
<b>Project:</b>	Mamm Creek	<b>TVD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Reference Site:</b>	S30-T7S-R95W (PL30 Pad)	<b>MD Reference:</b>	KBE @ 6242.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Daybreak Federal 30-13BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KBE @ 6242.0ft (Original Well Elev)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Daybreak Federal 30-13BB  
Coordinate System is US State Plane 1983, Colorado Central Zone  
Grid Convergence at Surface is: -1.61°



### LEGEND

- ◆ Daybreak Federal 25-9BB, DD, Plan #1 V0
- ◆ Daybreak Federal 30-12, DD, Plan #1 V0
- ▲ Daybreak Federal 30-11BB, DD, Plan #1 V0
- ✕ Daybreak Federal 30-12BB, DD, Plan #1 V0