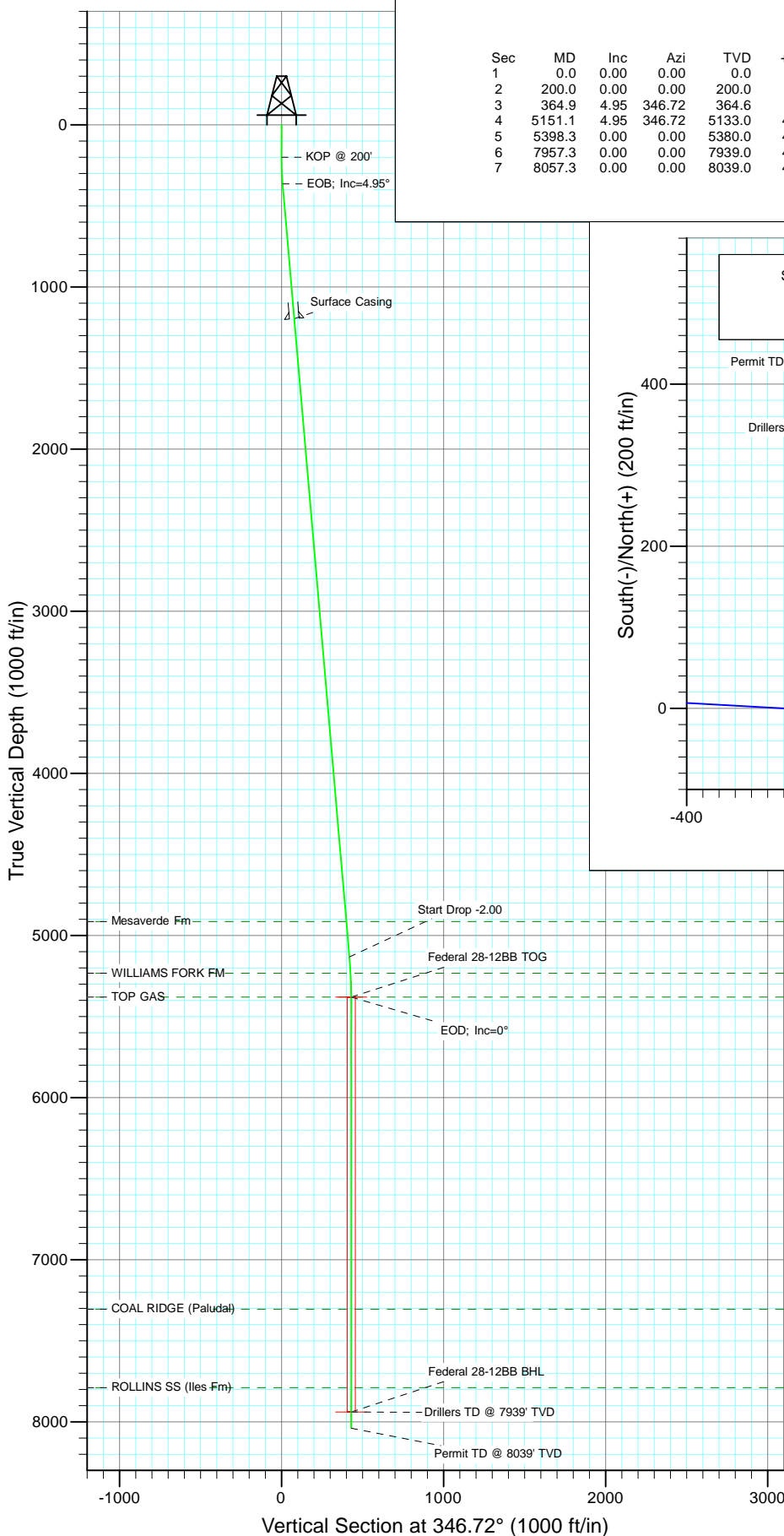


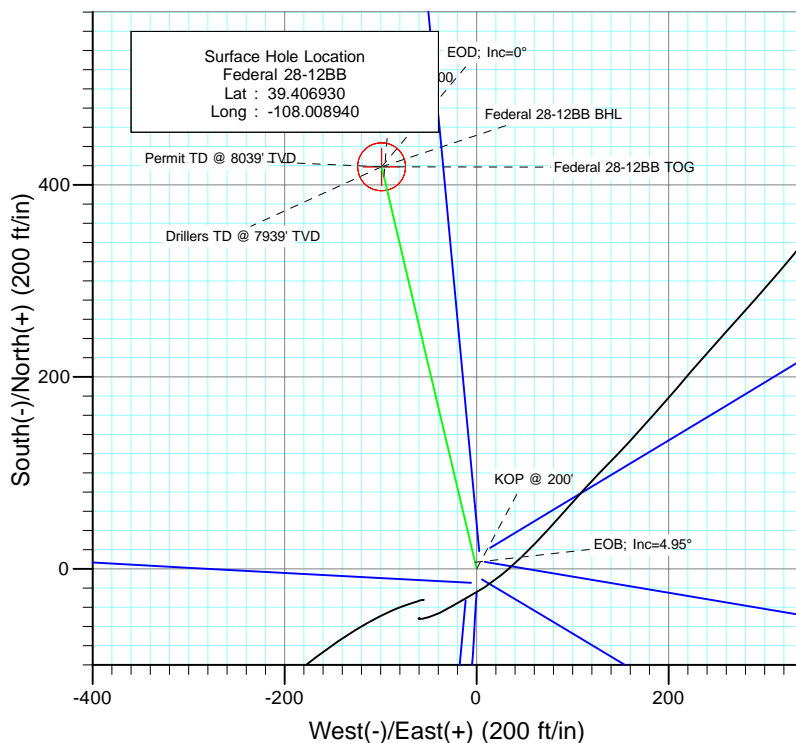


Project: S. Piceance  
 Site: PL 28 Pad (S28-T7S-R95W)  
 Well: Federal 28-12BB  
 Wellbore: DD  
 Design: Plan #1



#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSection	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	364.9	4.95	346.72	364.6	6.9	-1.6	3.00	346.72	7.1	
4	5151.1	4.95	346.72	5133.0	408.5	-96.4	0.00	0.00	419.7	
5	5398.3	0.00	0.00	5380.0	418.9	-98.9	2.00	180.00	430.4	Federal 28-12BB TOG
6	7957.3	0.00	0.00	7939.0	418.9	-98.9	0.00	0.00	430.4	Federal 28-12BB BHL
7	8057.3	0.00	0.00	8039.0	418.9	-98.9	0.00	0.00	430.4	



#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4914.0	4931.2	Mesaverde Fm
5233.0	5251.3	WILLIAMS FORK FM
5380.0	5398.3	TOP GAS
7305.0	7323.3	COAL RIDGE (Paludal)
7789.0	7807.3	ROLLINS SS (Iles Fm)



Azimuths to True North  
 Magnetic North: 10.45°

Magnetic Field  
 Strength: 52321.9snT  
 Dip Angle: 65.70°  
 Date: 6/11/2010  
 Model: IGRF200510

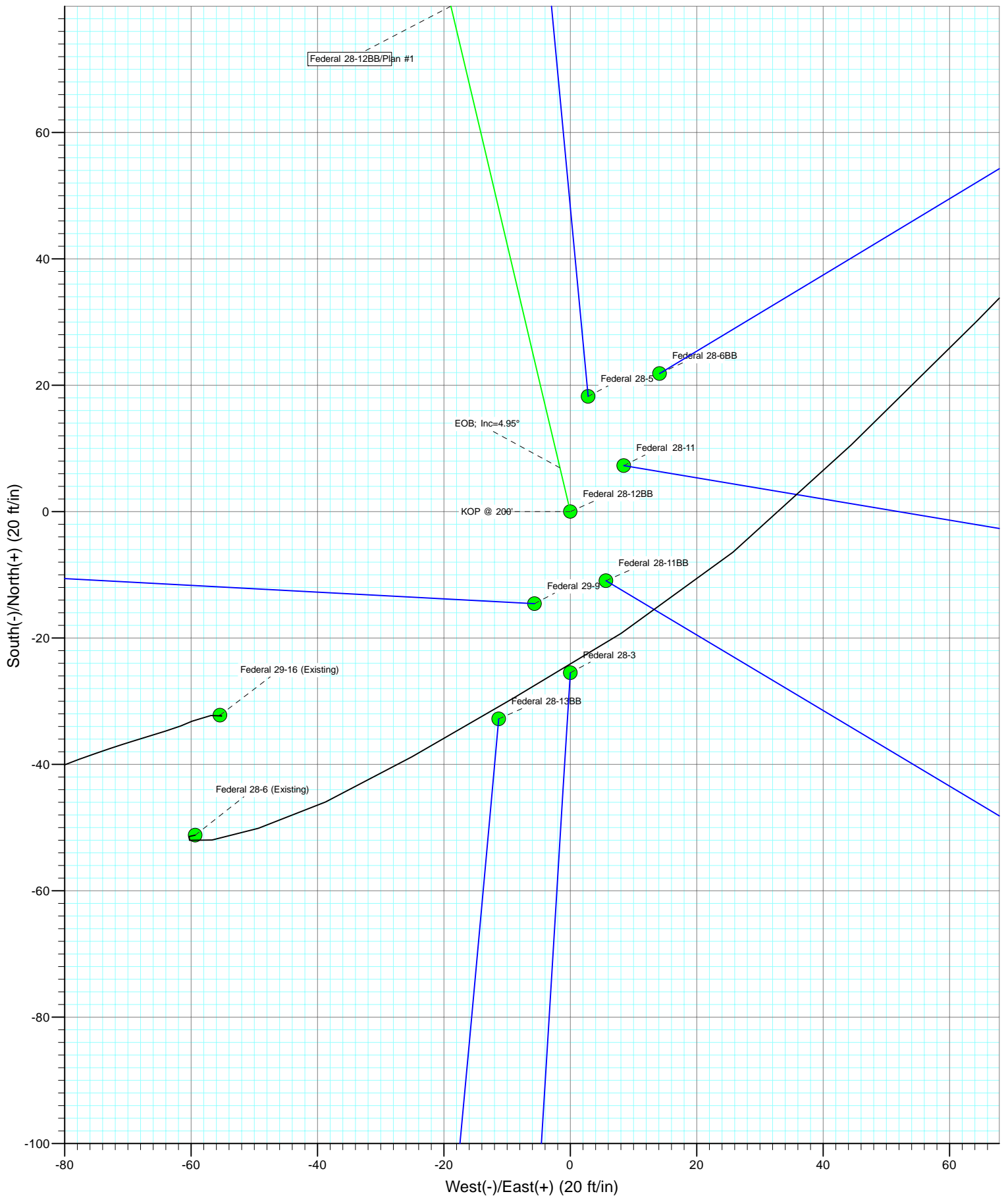
Plan #1  
 Federal 28-12BB  
 Job #10xxx: KR

WELL @ 7186.0ft (Original Well Elev)  
 North American Datum 1983  
 Well Federal 28-12BB, True North

Type	Target	TVD	+N/-S	+E/-W	Latitude	Longitude
Target	Federal 28-12BB BHL	7939.0	418.9	-98.9	39.408080	-108.009290



Project: S. Piceance  
Site: PL 28 Pad (S28-T7S-R95W)  
Well: Federal 28-12BB  
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 Federal 28-12BB
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Project:</b>	S. Piceance	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>North Reference:</b>	True
<b>Well:</b>	Federal 28-12BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

<b>Project</b>	S. Piceance, Garfield County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site		PL 28 Pad (S28-T7S-R95W)			
Site Position:		Northing:	1,582,914.36 ft	Latitude:	39.406980
From:	Lat/Long	Easting:	2,291,178.00 ft	Longitude:	-108.008930
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.58 °

Well	Federal 28-12BB					
Well Position	+N/-S	0.0 ft	Northing:	1,582,896.23 ft	Latitude:	39.406930
	+E/-W	0.0 ft	Easting:	2,291,174.67 ft	Longitude:	-108.008940
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,164.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	6/11/2010	10.45	65.70	52,322

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	346.72

<b>Plan Sections</b>										
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	
364.9	4.95	346.72	364.6	6.9	-1.6	3.00	3.00	0.00	346.72	
5,151.1	4.95	346.72	5,133.0	408.5	-96.4	0.00	0.00	0.00	0.00	
5,398.3	0.00	0.00	5,380.0	418.9	-98.9	2.00	-2.00	0.00	180.00	Federal 28-12BB TOC
7,957.3	0.00	0.00	7,939.0	418.9	-98.9	0.00	0.00	0.00	0.00	Federal 28-12BB BHL
8,057.3	0.00	0.00	8,039.0	418.9	-98.9	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 Federal 28-12BB
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Project:</b>	S. Piceance	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>North Reference:</b>	True
<b>Well:</b>	Federal 28-12BB	<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	KOP @ 200'
300.0	3.00	346.72	300.0	2.5	-0.6	2.6	3.00	3.00	
364.9	4.95	346.72	364.6	6.9	-1.6	7.1	3.00	3.00	EOB; Inc=4.95°
400.0	4.95	346.72	399.7	9.9	-2.3	10.1	0.00	0.00	
500.0	4.95	346.72	499.3	18.3	-4.3	18.8	0.00	0.00	
600.0	4.95	346.72	598.9	26.6	-6.3	27.4	0.00	0.00	
700.0	4.95	346.72	698.5	35.0	-8.3	36.0	0.00	0.00	
800.0	4.95	346.72	798.2	43.4	-10.3	44.6	0.00	0.00	
900.0	4.95	346.72	897.8	51.8	-12.2	53.2	0.00	0.00	
1,000.0	4.95	346.72	997.4	60.2	-14.2	61.9	0.00	0.00	
1,100.0	4.95	346.72	1,097.1	68.6	-16.2	70.5	0.00	0.00	
1,200.0	4.95	346.72	1,196.7	77.0	-18.2	79.1	0.00	0.00	Surface Casing
1,300.0	4.95	346.72	1,296.3	85.4	-20.2	87.7	0.00	0.00	
1,400.0	4.95	346.72	1,395.9	93.8	-22.1	96.3	0.00	0.00	
1,500.0	4.95	346.72	1,495.6	102.2	-24.1	105.0	0.00	0.00	
1,600.0	4.95	346.72	1,595.2	110.6	-26.1	113.6	0.00	0.00	
1,700.0	4.95	346.72	1,694.8	118.9	-28.1	122.2	0.00	0.00	
1,800.0	4.95	346.72	1,794.5	127.3	-30.1	130.8	0.00	0.00	
1,900.0	4.95	346.72	1,894.1	135.7	-32.0	139.5	0.00	0.00	
2,000.0	4.95	346.72	1,993.7	144.1	-34.0	148.1	0.00	0.00	
2,100.0	4.95	346.72	2,093.3	152.5	-36.0	156.7	0.00	0.00	
2,200.0	4.95	346.72	2,193.0	160.9	-38.0	165.3	0.00	0.00	
2,300.0	4.95	346.72	2,292.6	169.3	-40.0	173.9	0.00	0.00	
2,400.0	4.95	346.72	2,392.2	177.7	-41.9	182.6	0.00	0.00	
2,500.0	4.95	346.72	2,491.8	186.1	-43.9	191.2	0.00	0.00	
2,600.0	4.95	346.72	2,591.5	194.5	-45.9	199.8	0.00	0.00	
2,700.0	4.95	346.72	2,691.1	202.8	-47.9	208.4	0.00	0.00	
2,800.0	4.95	346.72	2,790.7	211.2	-49.9	217.0	0.00	0.00	
2,900.0	4.95	346.72	2,890.4	219.6	-51.9	225.7	0.00	0.00	
3,000.0	4.95	346.72	2,990.0	228.0	-53.8	234.3	0.00	0.00	
3,100.0	4.95	346.72	3,089.6	236.4	-55.8	242.9	0.00	0.00	
3,200.0	4.95	346.72	3,189.2	244.8	-57.8	251.5	0.00	0.00	
3,300.0	4.95	346.72	3,288.9	253.2	-59.8	260.1	0.00	0.00	
3,400.0	4.95	346.72	3,388.5	261.6	-61.8	268.8	0.00	0.00	
3,500.0	4.95	346.72	3,488.1	270.0	-63.7	277.4	0.00	0.00	
3,600.0	4.95	346.72	3,587.8	278.4	-65.7	286.0	0.00	0.00	
3,700.0	4.95	346.72	3,687.4	286.7	-67.7	294.6	0.00	0.00	
3,800.0	4.95	346.72	3,787.0	295.1	-69.7	303.3	0.00	0.00	
3,900.0	4.95	346.72	3,886.6	303.5	-71.7	311.9	0.00	0.00	
4,000.0	4.95	346.72	3,986.3	311.9	-73.6	320.5	0.00	0.00	
4,100.0	4.95	346.72	4,085.9	320.3	-75.6	329.1	0.00	0.00	
4,200.0	4.95	346.72	4,185.5	328.7	-77.6	337.7	0.00	0.00	
4,300.0	4.95	346.72	4,285.1	337.1	-79.6	346.4	0.00	0.00	
4,400.0	4.95	346.72	4,384.8	345.5	-81.6	355.0	0.00	0.00	
4,500.0	4.95	346.72	4,484.4	353.9	-83.5	363.6	0.00	0.00	
4,600.0	4.95	346.72	4,584.0	362.3	-85.5	372.2	0.00	0.00	
4,700.0	4.95	346.72	4,683.7	370.7	-87.5	380.8	0.00	0.00	
4,800.0	4.95	346.72	4,783.3	379.0	-89.5	389.5	0.00	0.00	
4,900.0	4.95	346.72	4,882.9	387.4	-91.5	398.1	0.00	0.00	
4,931.2	4.95	346.72	4,914.0	390.0	-92.1	400.8	0.00	0.00	Mesaverde Fm

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Project:</b>	S. Piceance	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>North Reference:</b>	True
<b>Well:</b>	Federal 28-12BB	<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
5,000.0	4.95	346.72	4,982.5	395.8	-93.5	406.7	0.00	0.00	
5,100.0	4.95	346.72	5,082.2	404.2	-95.4	415.3	0.00	0.00	
5,151.1	4.95	346.72	5,133.0	408.5	-96.4	419.7	0.00	0.00	Start Drop -2.00
5,200.0	3.97	346.72	5,181.8	412.2	-97.3	423.5	2.00	-2.00	
5,251.3	2.94	346.72	5,233.0	415.2	-98.0	426.6	2.00	-2.00	WILLIAMS FORK FM
5,300.0	1.97	346.72	5,281.7	417.2	-98.5	428.7	2.00	-2.00	
5,398.3	0.00	0.00	5,380.0	418.9	-98.9	430.4	2.00	-2.00	EOD; Inc=0° - TOP GAS - Federal 28-12BB TO
5,400.0	0.00	0.00	5,381.7	418.9	-98.9	430.4	0.00	0.00	
5,500.0	0.00	0.00	5,481.7	418.9	-98.9	430.4	0.00	0.00	
5,600.0	0.00	0.00	5,581.7	418.9	-98.9	430.4	0.00	0.00	
5,700.0	0.00	0.00	5,681.7	418.9	-98.9	430.4	0.00	0.00	
5,800.0	0.00	0.00	5,781.7	418.9	-98.9	430.4	0.00	0.00	
5,900.0	0.00	0.00	5,881.7	418.9	-98.9	430.4	0.00	0.00	
6,000.0	0.00	0.00	5,981.7	418.9	-98.9	430.4	0.00	0.00	
6,100.0	0.00	0.00	6,081.7	418.9	-98.9	430.4	0.00	0.00	
6,200.0	0.00	0.00	6,181.7	418.9	-98.9	430.4	0.00	0.00	
6,300.0	0.00	0.00	6,281.7	418.9	-98.9	430.4	0.00	0.00	
6,400.0	0.00	0.00	6,381.7	418.9	-98.9	430.4	0.00	0.00	
6,500.0	0.00	0.00	6,481.7	418.9	-98.9	430.4	0.00	0.00	
6,600.0	0.00	0.00	6,581.7	418.9	-98.9	430.4	0.00	0.00	
6,700.0	0.00	0.00	6,681.7	418.9	-98.9	430.4	0.00	0.00	
6,800.0	0.00	0.00	6,781.7	418.9	-98.9	430.4	0.00	0.00	
6,900.0	0.00	0.00	6,881.7	418.9	-98.9	430.4	0.00	0.00	
7,000.0	0.00	0.00	6,981.7	418.9	-98.9	430.4	0.00	0.00	
7,100.0	0.00	0.00	7,081.7	418.9	-98.9	430.4	0.00	0.00	
7,200.0	0.00	0.00	7,181.7	418.9	-98.9	430.4	0.00	0.00	
7,300.0	0.00	0.00	7,281.7	418.9	-98.9	430.4	0.00	0.00	
7,323.3	0.00	0.00	7,305.0	418.9	-98.9	430.4	0.00	0.00	COAL RIDGE (Paludal)
7,400.0	0.00	0.00	7,381.7	418.9	-98.9	430.4	0.00	0.00	
7,500.0	0.00	0.00	7,481.7	418.9	-98.9	430.4	0.00	0.00	
7,600.0	0.00	0.00	7,581.7	418.9	-98.9	430.4	0.00	0.00	
7,700.0	0.00	0.00	7,681.7	418.9	-98.9	430.4	0.00	0.00	
7,800.0	0.00	0.00	7,781.7	418.9	-98.9	430.4	0.00	0.00	
7,807.3	0.00	0.00	7,789.0	418.9	-98.9	430.4	0.00	0.00	ROLLINS SS (Iles Fm)
7,900.0	0.00	0.00	7,881.7	418.9	-98.9	430.4	0.00	0.00	
7,957.3	0.00	0.00	7,939.0	418.9	-98.9	430.4	0.00	0.00	Drillers TD @ 7939' TVD - Federal 28-12BB BH
8,000.0	0.00	0.00	7,981.7	418.9	-98.9	430.4	0.00	0.00	
8,057.3	0.00	0.00	8,039.0	418.9	-98.9	430.4	0.00	0.00	Permit TD @ 8039' TVD

### 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									
Federal 28-12BB TOG	0.00	0.00	5,380.0	418.9	-98.9	1,583,317.67	2,291,087.38	39.408080	-108.009290
- plan hits target center									
- Point									
Federal 28-12BB BHL	0.00	0.00	7,939.0	418.9	-98.9	1,583,317.67	2,291,087.38	39.408080	-108.009290
- plan hits target center									
- Circle (radius 25.0)									

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Project:</b>	S. Piceance	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>North Reference:</b>	True
<b>Well:</b>	Federal 28-12BB	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,200.0	1,196.7	Surface Casing	0.000	0.000

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,931.2	4,914.0	Mesaverde Fm			
5,251.3	5,233.0	WILLIAMS FORK FM			
5,398.3	5,380.0	TOP GAS			
7,323.3	7,305.0	COAL RIDGE (Paludal)			
7,807.3	7,789.0	ROLLINS SS (Iles Fm)			

### 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'
364.9	364.6	6.9	-1.6	EOB; Inc=4.95°
5,151.1	5,133.0	408.5	-96.4	Start Drop -2.00
5,398.3	5,380.0	418.9	-98.9	EOD; Inc=0°
7,957.3	7,939.0	418.9	-98.9	Drillers TD @ 7939' TVD
8,057.3	8,039.0	418.9	-98.9	Permit TD @ 8039' TVD

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

**S. Piceance**

**PL 28 Pad (S28-T7S-R95W)**

**Federal 28-12BB**

**DD**

**Plan #1**

## **Anticollision Report**

**26 July, 2010**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
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 100.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	7/26/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	8,057.3	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						
PL 28 Pad (S28-T7S-R95W)						
Federal 28-11 - DD - Plan #1	200.0	200.0	11.2	10.6	17.988	CC
Federal 28-11 - DD - Plan #1	201.7	201.7	11.2	10.5	17.816	ES
Federal 28-11 - DD - Plan #1	300.0	299.4	12.4	11.4	12.670	SF
Federal 28-11BB - DD - Plan #1	200.0	200.0	12.3	11.7	19.799	CC, ES
Federal 28-11BB - DD - Plan #1	300.0	299.2	17.1	16.1	17.573	SF
Federal 28-13BB - DD - Plan #1	200.0	200.0	34.7	34.1	55.813	CC, ES
Federal 28-13BB - DD - Plan #1	1,000.0	997.4	93.0	89.6	27.196	SF
Federal 28-3 - DD - Plan #1	200.0	200.0	25.5	24.9	41.034	CC, ES
Federal 28-3 - DD - Plan #1	300.0	298.4	30.6	29.7	31.653	SF
Federal 28-5 - DD - Plan #1	200.0	200.0	18.4	17.8	29.675	CC
Federal 28-5 - DD - Plan #1	300.0	299.1	18.5	17.6	19.101	ES
Federal 28-5 - DD - Plan #1	500.0	497.0	23.7	22.0	13.981	SF
Federal 28-6 (Existing) - DD - Schlumberger Surveys	729.7	739.2	62.3	59.2	20.544	CC, ES
Federal 28-6 (Existing) - DD - Schlumberger Surveys	900.0	908.6	68.9	64.7	16.448	SF
Federal 28-6BB - DD - Plan #1	200.0	200.0	26.0	25.4	41.882	CC, ES
Federal 28-6BB - DD - Plan #1	400.0	396.9	30.6	29.3	22.662	SF
Federal 29-16 (Existing) - DD - Schlumberger surveys	172.2	172.2	63.9	63.3	121.779	CC
Federal 29-16 (Existing) - DD - Schlumberger surveys	200.0	199.9	63.9	63.2	102.812	ES
Federal 29-16 (Existing) - DD - Schlumberger surveys	700.0	692.8	95.2	92.7	38.139	SF
Federal 29-9 - DD - Plan #1	200.0	200.0	15.6	15.0	25.157	CC, ES
Federal 29-9 - DD - Plan #1	300.0	299.6	18.6	17.6	19.010	SF



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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> PL 28 Pad (S28-T7S-R95W) - Federal 28-11 - 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 (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	49.33	7.3	8.5	11.2					
100.0	100.0	100.0	100.0	0.1	0.1	49.33	7.3	8.5	11.2	10.9	0.27	41.050		
200.0	200.0	200.0	200.0	0.3	0.3	49.33	7.3	8.5	11.2	10.6	0.62	17.988 CC		
201.7	201.7	201.7	201.7	0.3	0.3	62.62	7.3	8.5	11.2	10.5	0.63	17.816 ES		
300.0	300.0	299.4	299.4	0.5	0.5	82.83	6.9	11.0	12.4	11.4	0.98	12.670 SF		
400.0	399.7	397.8	397.4	0.7	0.7	114.29	5.6	18.6	21.4	20.1	1.35	15.877		
500.0	499.3	494.7	493.5	0.9	1.0	125.29	3.5	30.9	38.6	36.8	1.72	22.354		
600.0	598.9	589.7	587.0	1.1	1.3	128.10	0.7	47.6	60.9	58.8	2.11	28.877		
700.0	698.5	683.6	678.5	1.4	1.7	128.51	-2.7	68.4	87.8	85.3	2.50	35.097		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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> PL 28 Pad (S28-T7S-R95W) - Federal 28-11BB - 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					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)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	152.65	-10.9	5.7	12.3					
100.0	100.0	100.0	100.0	0.1	0.1	152.65	-10.9	5.7	12.3	12.0	0.27	45.182		
200.0	200.0	200.0	200.0	0.3	0.3	152.65	-10.9	5.7	12.3	11.7	0.62	19.799 CC, ES		
300.0	300.0	299.2	299.2	0.5	0.5	163.45	-12.2	7.9	17.1	16.1	0.97	17.573 SF		
400.0	399.7	397.1	396.8	0.7	0.7	160.35	-16.1	14.4	31.0	29.7	1.33	23.388		
500.0	499.3	493.3	492.2	0.9	1.0	157.24	-22.5	24.9	50.6	49.0	1.69	29.912		
600.0	598.9	587.4	584.8	1.1	1.3	154.49	-31.0	39.3	74.8	72.8	2.06	36.275		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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												PL 28 Pad (S28-T7S-R95W) - Federal 28-13BB - 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 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	-160.98	-32.8	-11.3	34.7							
100.0	100.0	100.0	100.0	0.1	0.1	-160.98	-32.8	-11.3	34.7	34.4	0.27	127.368				
200.0	200.0	200.0	200.0	0.3	0.3	-160.98	-32.8	-11.3	34.7	34.1	0.62	55.813	CC, ES			
300.0	300.0	300.0	300.0	0.5	0.5	-149.83	-32.8	-11.3	36.9	35.9	0.97	37.985				
400.0	399.7	399.7	399.7	0.7	0.7	-154.75	-32.8	-11.3	43.6	42.3	1.32	32.899				
500.0	499.3	499.3	499.3	0.9	0.8	-158.85	-32.8	-11.3	51.5	49.8	1.68	30.722				
600.0	598.9	598.9	598.9	1.1	1.0	-161.83	-32.8	-11.3	59.6	57.6	2.03	29.421				
700.0	698.5	698.5	698.5	1.4	1.2	-164.10	-32.8	-11.3	67.9	65.5	2.38	28.568				
800.0	798.2	798.2	798.2	1.6	1.4	-165.88	-32.8	-11.3	76.2	73.5	2.73	27.971				
900.0	897.8	897.8	897.8	1.8	1.5	-167.30	-32.8	-11.3	84.6	81.5	3.07	27.532				
1,000.0	997.4	997.4	997.4	2.1	1.7	-168.47	-32.8	-11.3	93.0	89.6	3.42	27.196	SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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> PL 28 Pad (S28-T7S-R95W) - Federal 28-3 - 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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	180.00	-25.5	0.0	25.5				
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-25.5	0.0	25.5	25.2	0.27	93.642	
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-25.5	0.0	25.5	24.9	0.62	41.034 CC, ES	
300.0	300.0	298.4	298.4	0.5	0.5	-167.50	-28.0	-0.2	30.6	29.7	0.97	31.653 SF	
400.0	399.7	395.4	395.0	0.7	0.7	-168.75	-35.5	-0.6	45.6	44.3	1.31	34.793	
500.0	499.3	490.4	489.3	0.9	1.0	-169.11	-47.5	-1.3	66.6	64.9	1.65	40.286	
600.0	598.9	583.2	580.6	1.1	1.3	-168.99	-63.7	-2.3	92.3	90.3	1.99	46.357	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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> PL 28 Pad (S28-T7S-R95W) - Federal 28-5 - 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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	8.82	18.2	2.8	18.4				
100.0	100.0	100.0	100.0	0.1	0.1	8.82	18.2	2.8	18.4	18.2	0.27	67.720	
200.0	200.0	200.0	200.0	0.3	0.3	8.82	18.2	2.8	18.4	17.8	0.62	29.675 CC	
300.0	300.0	299.1	299.0	0.5	0.5	23.17	20.8	2.6	18.5	17.6	0.97	19.101 ES	
400.0	399.7	398.1	397.8	0.7	0.7	25.89	28.4	1.9	19.1	17.8	1.33	14.402	
500.0	499.3	497.0	495.8	0.9	1.0	25.33	41.2	0.7	23.7	22.0	1.70	13.981 SF	
600.0	598.9	595.1	592.3	1.1	1.3	22.37	58.8	-1.0	33.2	31.2	2.06	16.164	
700.0	698.5	694.3	689.3	1.4	1.7	19.92	79.3	-2.9	45.5	43.1	2.41	18.897	
800.0	798.2	793.5	786.3	1.6	2.1	18.51	99.9	-4.8	57.9	55.2	2.77	20.949	
900.0	897.8	892.7	883.4	1.8	2.5	17.59	120.4	-6.8	70.3	67.2	3.12	22.541	
1,000.0	997.4	991.9	980.4	2.1	2.9	16.95	141.0	-8.7	82.7	79.3	3.48	23.812	
1,100.0	1,097.1	1,091.1	1,077.5	2.3	3.3	16.48	161.6	-10.6	95.2	91.3	3.83	24.850	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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												PL 28 Pad (S28-T7S-R95W) - Federal 28-6 (Existing) - DD - Schlumberger Surveys		Offset Site Error:		0.0 ft	
Survey Program:		141-MWD												Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning				
0.0	0.0	0.0	0.0	0.0	0.0	-130.79	-51.2	-59.3	78.4								
100.0	100.0	99.3	99.3	0.1	0.1	-130.61	-51.3	-59.8	78.8	78.5	0.28	278.927					
200.0	200.0	199.9	199.9	0.3	0.3	-130.47	-51.7	-60.6	79.6	79.0	0.62	128.143					
300.0	300.0	303.1	303.1	0.5	0.5	-120.39	-52.2	-58.1	79.4	78.4	0.99	80.581					
400.0	399.7	406.4	406.0	0.7	0.7	-128.33	-50.4	-50.5	77.5	76.1	1.38	56.243					
500.0	499.3	509.1	508.0	0.9	1.0	-138.89	-45.9	-38.6	73.2	71.4	1.79	40.852					
600.0	598.9	611.2	608.4	1.1	1.3	-152.66	-37.4	-22.6	66.7	64.5	2.27	29.359					
700.0	698.5	709.9	704.9	1.4	1.7	-170.01	-27.1	-4.8	62.5	59.7	2.84	21.986					
729.7	728.1	739.2	733.5	1.4	1.8	-175.67	-23.7	0.8	62.3	59.2	3.03	20.544	CC, ES				
800.0	798.2	809.0	801.5	1.6	2.1	170.56	-15.1	14.3	63.6	60.1	3.50	18.187					
900.0	897.8	908.6	897.7	1.8	2.6	150.82	0.9	34.2	68.9	64.7	4.19	16.448	SF				
1,000.0	997.4	1,005.6	990.2	2.1	3.2	132.29	21.1	55.1	80.0	75.2	4.81	16.630					
1,100.0	1,097.1	1,101.3	1,080.7	2.3	3.7	117.65	43.3	77.0	97.9	92.6	5.31	18.437					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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> PL 28 Pad (S28-T7S-R95W) - Federal 28-6BB - 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	32.88	21.9	14.1	26.0					
100.0	100.0	100.0	100.0	0.1	0.1	32.88	21.9	14.1	26.0	25.8	0.27	95.577		
200.0	200.0	200.0	200.0	0.3	0.3	32.88	21.9	14.1	26.0	25.4	0.62	41.882 CC, ES		
300.0	300.0	298.7	298.7	0.5	0.5	52.56	23.2	16.3	26.7	25.7	0.97	27.407		
400.0	399.7	396.9	396.5	0.7	0.7	68.48	27.1	22.8	30.6	29.3	1.35	22.662 SF		
500.0	499.3	494.2	493.0	0.9	1.0	80.58	33.5	33.5	41.3	39.5	1.75	23.598		
600.0	598.9	590.3	587.6	1.1	1.3	86.21	42.4	48.2	57.8	55.6	2.16	26.759		
700.0	698.5	684.7	679.5	1.4	1.7	88.25	53.4	66.5	79.3	76.8	2.58	30.712		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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											PL 28 Pad (S28-T7S-R95W) - Federal 29-16 (Existing) - DD - Schlumberger surveys			Offset Site Error:		0.0 ft
Survey Program:											110-MWD			Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance									
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation	Warning			
(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	-120.16	-32.2	-55.4	64.1							
100.0	100.0	100.2	100.2	0.1	0.1	-120.33	-32.3	-55.2	64.0	63.7	0.28	231.692				
172.2	172.2	172.2	172.2	0.3	0.3	-120.49	-32.4	-55.0	63.9	63.3	0.52	121.779	CC			
200.0	200.0	199.9	199.9	0.3	0.3	-120.46	-32.4	-55.1	63.9	63.2	0.62	102.812	ES			
300.0	300.0	299.2	299.2	0.5	0.5	-108.90	-32.2	-55.8	65.2	64.2	0.98	66.750				
400.0	399.7	398.2	398.1	0.7	0.7	-113.90	-32.4	-57.7	69.6	68.3	1.35	51.476				
500.0	499.3	496.8	496.7	0.9	0.8	-119.17	-33.4	-60.3	76.2	74.5	1.73	44.017				
600.0	598.9	594.8	594.6	1.1	1.0	-122.91	-34.9	-64.7	85.0	82.9	2.11	40.255				
700.0	698.5	692.8	692.4	1.4	1.2	-125.42	-36.7	-70.5	95.2	92.7	2.50	38.139	SF			



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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> PL 28 Pad (S28-T7S-R95W) - Federal 29-9 - 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						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-158.81	-14.6	-5.7	15.6				
100.0	100.0	100.0	100.0	0.1	0.1	-158.81	-14.6	-5.7	15.6	15.4	0.27	57.410	
200.0	200.0	200.0	200.0	0.3	0.3	-158.81	-14.6	-5.7	15.6	15.0	0.62	25.157 CC, ES	
300.0	300.0	299.6	299.6	0.5	0.5	-142.41	-14.4	-8.2	18.6	17.6	0.98	19.010 SF	
400.0	399.7	398.7	398.4	0.7	0.7	-136.73	-14.0	-16.0	27.5	26.2	1.38	19.961	
500.0	499.3	496.9	495.7	0.9	1.0	-128.66	-13.3	-28.7	40.0	38.2	1.83	21.915	
600.0	598.9	593.8	591.1	1.1	1.3	-120.51	-12.4	-46.1	56.3	54.0	2.30	24.437	
700.0	698.5	689.0	683.6	1.4	1.8	-113.60	-11.2	-67.8	76.9	74.1	2.79	27.597	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Federal 28-12BB
<b>Project:</b>	S. Piceance	<b>TVD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Reference Site:</b>	PL 28 Pad (S28-T7S-R95W)	<b>MD Reference:</b>	WELL @ 7186.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Federal 28-12BB	<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 WELL @ 7186.0ft (Original Well Elev)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Federal 28-12BB  
 Coordinate System is US State Plane 1983, Colorado Central Zone  
 Grid Convergence at Surface is: -1.58°

