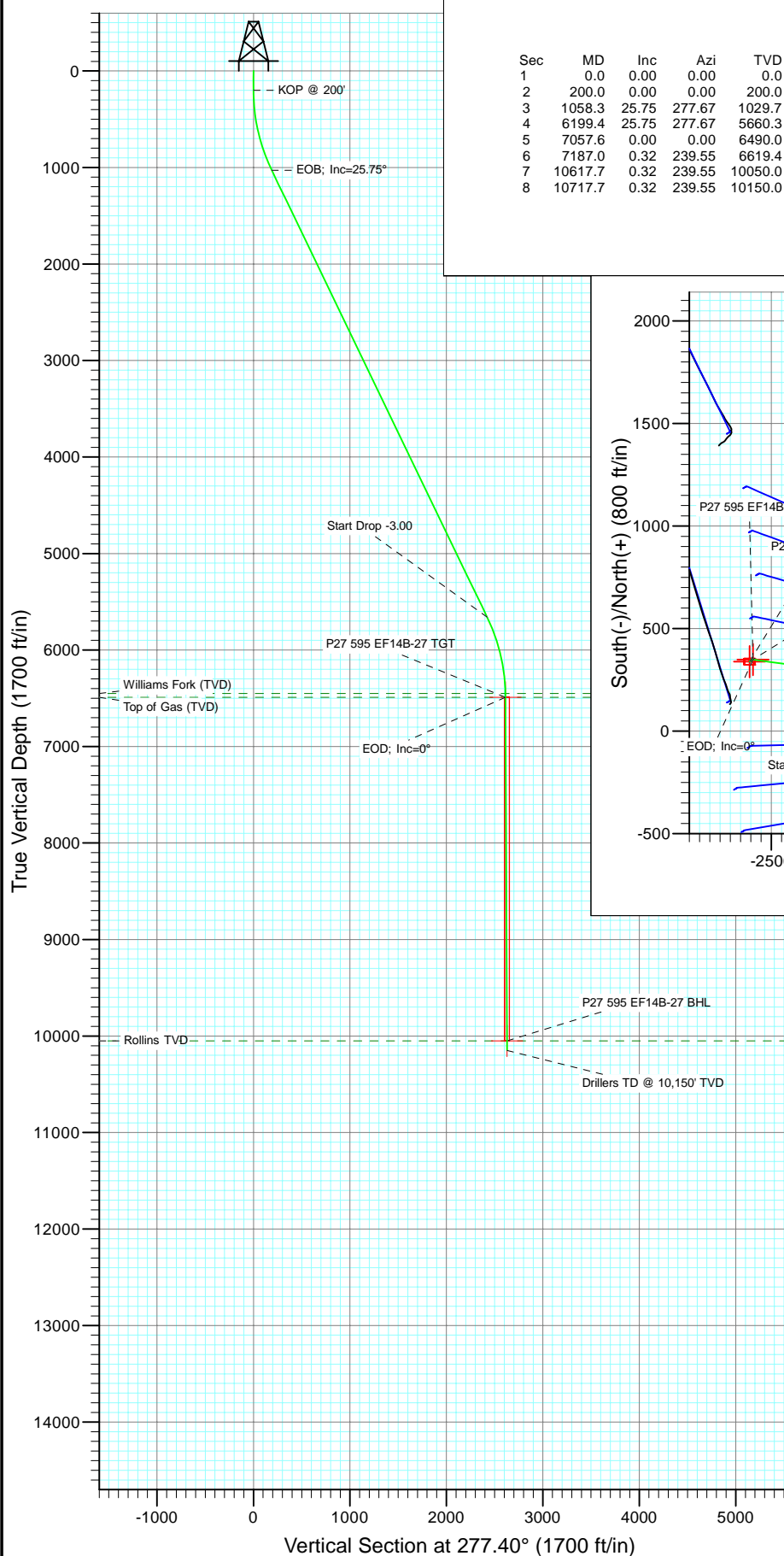


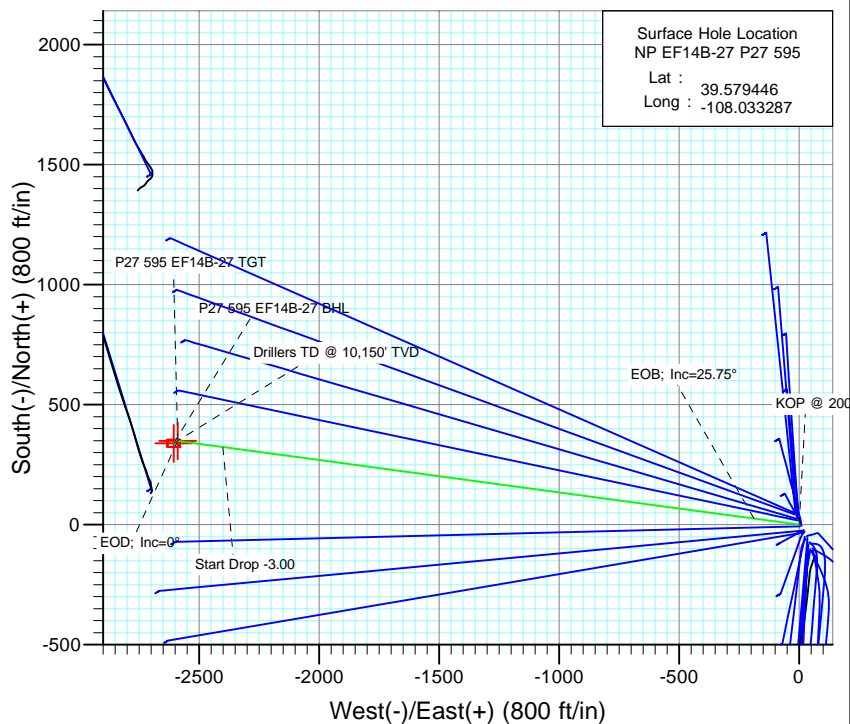


Project: North Piceance
Site: P27 595 (S27-T5S-R95W)
Well: NP EF14B-27 P27 595
Wellbore: DD
Design: Plan #1



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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	1058.3	25.75	277.67	1029.7	25.3	-187.9	3.00	277.67	189.6	
4	6199.4	25.75	277.67	5660.3	323.6	-2401.3	0.00	0.00	2423.0	
5	7057.6	0.00	0.00	6490.0	348.9	-2589.2	3.00	180.00	2612.6	P27 595 EF14B-27 TGT
6	7187.0	0.32	239.55	6619.4	348.7	-2589.5	0.25	239.55	2612.9	
7	10617.7	0.32	239.55	10050.0	338.9	-2606.2	0.00	0.00	2628.2	P27 595 EF14B-27 BHL
8	10717.7	0.32	239.55	10150.0	338.6	-2606.7	0.00	0.00	2628.6	



Azimuths to True North
Magnetic North: 10.46°

Magnetic Field
Strength: 52345.8nT
Dip Angle: 65.82°
Date: 11/8/2010
Model: IGRF2010

FORMATION TOP DETAILS

TVDPATH	MDPATH	Formation
6450.0	7017.6	Williams Fork (TVD)
6490.0	7057.6	Top of Gas (TVD)
10050.0	10617.7	Rollins TVD

Plan #1						
NP EF14B-27 P27 595						
WELL @ 6675.0ft (Original Well Elev)						
North American Datum 1983						
Well NP EF14B-27 P27 595, True North						
Type	Target	Azimuth	Origin	Type	N/S	E/W From TVD
TD	No Target (Freehand)	277.40	Slot		0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
P27 595 EF14B-27 TGT	6490.0	348.9	-2589.2	39.580404	-108.042473	
P27 595 EF14B-27 BHL	10050.0	338.9	-2606.2	39.580376	-108.042533	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF14B-27 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6675.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6675.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF14B-27 P27 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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

Site		P27 595 (S27-T5S-R95W)			
Site Position:		Northing:	1,645,842.89 ft	Latitude:	39.579292
From:	Lat/Long	Easting:	2,286,079.88 ft	Longitude:	-108.033175
Position Uncertainty:	0.0 ft	Slot Radius:	0.000 in	Grid Convergence:	-1.60 °

Well	NP EF14B-27 P27 595					
Well Position	+N/-S	0.0 ft	Northing:	1,645,899.99 ft	Latitude:	39.579446
	+E/-W	0.0 ft	Easting:	2,286,049.98 ft	Longitude:	-108.033287
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,649.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/8/2010	10.46	65.82	52,346

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	277.40

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	
1,058.3	25.75	277.67	1,029.7	25.3	-187.9	3.00	3.00	0.00	277.67	
6,199.4	25.75	277.67	5,660.3	323.6	-2,401.3	0.00	0.00	0.00	0.00	
7,057.6	0.00	0.00	6,490.0	348.9	-2,589.2	3.00	-3.00	0.00	180.00	P27 595 EF14B-27 T
7,187.0	0.32	239.55	6,619.4	348.7	-2,589.5	0.25	0.25	-93.07	239.55	
10,617.7	0.32	239.55	10,050.0	338.9	-2,606.2	0.00	0.00	0.00	0.00	P27 595 EF14B-27 BI
10,717.7	0.32	239.55	10,150.0	338.6	-2,606.7	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 NP EF14B-27 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6675.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6675.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF14B-27 P27 595	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	
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	277.67	300.0	0.3	-2.6	2.6	3.00	3.00	
400.0	6.00	277.67	399.6	1.4	-10.4	10.5	3.00	3.00	
500.0	9.00	277.67	498.8	3.1	-23.3	23.5	3.00	3.00	
600.0	12.00	277.67	597.1	5.6	-41.4	41.7	3.00	3.00	
700.0	15.00	277.67	694.3	8.7	-64.5	65.1	3.00	3.00	
800.0	18.00	277.67	790.2	12.5	-92.6	93.5	3.00	3.00	
900.0	21.00	277.67	884.4	16.9	-125.7	126.9	3.00	3.00	
1,000.0	24.00	277.67	976.8	22.1	-163.6	165.1	3.00	3.00	
1,058.3	25.75	277.67	1,029.7	25.3	-187.9	189.6	3.00	3.00	EOB; Inc=25.75°
1,100.0	25.75	277.67	1,067.3	27.7	-205.9	207.8	0.00	0.00	
1,200.0	25.75	277.67	1,157.3	33.5	-248.9	251.2	0.00	0.00	
1,300.0	25.75	277.67	1,247.4	39.3	-292.0	294.6	0.00	0.00	
1,400.0	25.75	277.67	1,337.5	45.1	-335.0	338.1	0.00	0.00	
1,500.0	25.75	277.67	1,427.5	50.9	-378.1	381.5	0.00	0.00	
1,600.0	25.75	277.67	1,517.6	56.8	-421.2	425.0	0.00	0.00	
1,700.0	25.75	277.67	1,607.7	62.6	-464.2	468.4	0.00	0.00	
1,800.0	25.75	277.67	1,697.8	68.4	-507.3	511.8	0.00	0.00	
1,900.0	25.75	277.67	1,787.8	74.2	-550.3	555.3	0.00	0.00	
2,000.0	25.75	277.67	1,877.9	80.0	-593.4	598.7	0.00	0.00	
2,100.0	25.75	277.67	1,968.0	85.8	-636.4	642.2	0.00	0.00	
2,200.0	25.75	277.67	2,058.0	91.6	-679.5	685.6	0.00	0.00	
2,300.0	25.75	277.67	2,148.1	97.4	-722.5	729.0	0.00	0.00	
2,400.0	25.75	277.67	2,238.2	103.2	-765.6	772.5	0.00	0.00	
2,500.0	25.75	277.67	2,328.3	109.0	-808.6	815.9	0.00	0.00	
2,600.0	25.75	277.67	2,418.3	114.8	-851.7	859.4	0.00	0.00	
2,700.0	25.75	277.67	2,508.4	120.6	-894.7	902.8	0.00	0.00	
2,800.0	25.75	277.67	2,598.5	126.4	-937.8	946.2	0.00	0.00	
2,900.0	25.75	277.67	2,688.5	132.2	-980.8	989.7	0.00	0.00	
3,000.0	25.75	277.67	2,778.6	138.0	-1,023.9	1,033.1	0.00	0.00	
3,100.0	25.75	277.67	2,868.7	143.8	-1,066.9	1,076.6	0.00	0.00	
3,200.0	25.75	277.67	2,958.8	149.6	-1,110.0	1,120.0	0.00	0.00	
3,300.0	25.75	277.67	3,048.8	155.4	-1,153.0	1,163.4	0.00	0.00	
3,400.0	25.75	277.67	3,138.9	161.2	-1,196.1	1,206.9	0.00	0.00	
3,500.0	25.75	277.67	3,229.0	167.0	-1,239.1	1,250.3	0.00	0.00	
3,600.0	25.75	277.67	3,319.0	172.8	-1,282.2	1,293.8	0.00	0.00	
3,700.0	25.75	277.67	3,409.1	178.6	-1,325.2	1,337.2	0.00	0.00	
3,800.0	25.75	277.67	3,499.2	184.4	-1,368.3	1,380.6	0.00	0.00	
3,900.0	25.75	277.67	3,589.3	190.2	-1,411.4	1,424.1	0.00	0.00	
4,000.0	25.75	277.67	3,679.3	196.0	-1,454.4	1,467.5	0.00	0.00	
4,100.0	25.75	277.67	3,769.4	201.8	-1,497.5	1,511.0	0.00	0.00	
4,200.0	25.75	277.67	3,859.5	207.6	-1,540.5	1,554.4	0.00	0.00	
4,300.0	25.75	277.67	3,949.5	213.4	-1,583.6	1,597.9	0.00	0.00	
4,400.0	25.75	277.67	4,039.6	219.2	-1,626.6	1,641.3	0.00	0.00	
4,500.0	25.75	277.67	4,129.7	225.0	-1,669.7	1,684.7	0.00	0.00	
4,600.0	25.75	277.67	4,219.8	230.8	-1,712.7	1,728.2	0.00	0.00	
4,700.0	25.75	277.67	4,309.8	236.6	-1,755.8	1,771.6	0.00	0.00	
4,800.0	25.75	277.67	4,399.9	242.4	-1,798.8	1,815.1	0.00	0.00	
4,900.0	25.75	277.67	4,490.0	248.2	-1,841.9	1,858.5	0.00	0.00	
5,000.0	25.75	277.67	4,580.0	254.0	-1,884.9	1,901.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF14B-27 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6675.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6675.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF14B-27 P27 595	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
5,100.0	25.75	277.67	4,670.1	259.8	-1,928.0	1,945.4	0.00	0.00	
5,200.0	25.75	277.67	4,760.2	265.6	-1,971.0	1,988.8	0.00	0.00	
5,300.0	25.75	277.67	4,850.3	271.4	-2,014.1	2,032.3	0.00	0.00	
5,400.0	25.75	277.67	4,940.3	277.2	-2,057.1	2,075.7	0.00	0.00	
5,500.0	25.75	277.67	5,030.4	283.0	-2,100.2	2,119.1	0.00	0.00	
5,600.0	25.75	277.67	5,120.5	288.8	-2,143.2	2,162.6	0.00	0.00	
5,700.0	25.75	277.67	5,210.5	294.6	-2,186.3	2,206.0	0.00	0.00	
5,800.0	25.75	277.67	5,300.6	300.4	-2,229.3	2,249.5	0.00	0.00	
5,900.0	25.75	277.67	5,390.7	306.2	-2,272.4	2,292.9	0.00	0.00	
6,000.0	25.75	277.67	5,480.8	312.0	-2,315.4	2,336.3	0.00	0.00	
6,100.0	25.75	277.67	5,570.8	317.8	-2,358.5	2,379.8	0.00	0.00	
6,199.4	25.75	277.67	5,660.3	323.6	-2,401.3	2,423.0	0.00	0.00	Start Drop -3.00
6,200.0	25.73	277.67	5,660.9	323.6	-2,401.5	2,423.2	3.00	-3.00	
6,300.0	22.73	277.67	5,752.1	329.1	-2,442.2	2,464.3	3.00	-3.00	
6,400.0	19.73	277.67	5,845.3	333.9	-2,478.1	2,500.5	3.00	-3.00	
6,500.0	16.73	277.67	5,940.3	338.1	-2,509.1	2,531.7	3.00	-3.00	
6,600.0	13.73	277.67	6,036.7	341.6	-2,535.1	2,558.0	3.00	-3.00	
6,700.0	10.73	277.67	6,134.5	344.4	-2,556.1	2,579.2	3.00	-3.00	
6,800.0	7.73	277.67	6,233.1	346.6	-2,572.0	2,595.2	3.00	-3.00	
6,900.0	4.73	277.67	6,332.5	348.0	-2,582.8	2,606.1	3.00	-3.00	
7,000.0	1.73	277.67	6,432.4	348.8	-2,588.3	2,611.7	3.00	-3.00	
7,017.6	1.20	277.67	6,450.0	348.8	-2,588.8	2,612.2	3.00	-3.00	Williams Fork (TVD)
7,057.6	0.00	0.00	6,490.0	348.9	-2,589.2	2,612.6	3.00	-3.00	EOD; Inc=0° - Top of Gas (TVD) - P27 595 EF1
7,100.0	0.11	239.55	6,532.4	348.9	-2,589.2	2,612.6	0.25	0.25	
7,187.0	0.32	239.55	6,619.4	348.7	-2,589.5	2,612.9	0.25	0.25	
7,200.0	0.32	239.55	6,632.4	348.7	-2,589.6	2,612.9	0.00	0.00	
7,300.0	0.32	239.55	6,732.4	348.4	-2,590.1	2,613.4	0.00	0.00	
7,400.0	0.32	239.55	6,832.4	348.1	-2,590.6	2,613.8	0.00	0.00	
7,500.0	0.32	239.55	6,932.4	347.8	-2,591.0	2,614.3	0.00	0.00	
7,600.0	0.32	239.55	7,032.4	347.5	-2,591.5	2,614.7	0.00	0.00	
7,700.0	0.32	239.55	7,132.4	347.2	-2,592.0	2,615.1	0.00	0.00	
7,800.0	0.32	239.55	7,232.4	347.0	-2,592.5	2,615.6	0.00	0.00	
7,900.0	0.32	239.55	7,332.4	346.7	-2,593.0	2,616.0	0.00	0.00	
8,000.0	0.32	239.55	7,432.4	346.4	-2,593.5	2,616.5	0.00	0.00	
8,100.0	0.32	239.55	7,532.4	346.1	-2,594.0	2,616.9	0.00	0.00	
8,200.0	0.32	239.55	7,632.4	345.8	-2,594.4	2,617.4	0.00	0.00	
8,300.0	0.32	239.55	7,732.3	345.5	-2,594.9	2,617.8	0.00	0.00	
8,400.0	0.32	239.55	7,832.3	345.2	-2,595.4	2,618.3	0.00	0.00	
8,500.0	0.32	239.55	7,932.3	345.0	-2,595.9	2,618.7	0.00	0.00	
8,600.0	0.32	239.55	8,032.3	344.7	-2,596.4	2,619.2	0.00	0.00	
8,700.0	0.32	239.55	8,132.3	344.4	-2,596.9	2,619.6	0.00	0.00	
8,800.0	0.32	239.55	8,232.3	344.1	-2,597.4	2,620.1	0.00	0.00	
8,900.0	0.32	239.55	8,332.3	343.8	-2,597.9	2,620.5	0.00	0.00	
9,000.0	0.32	239.55	8,432.3	343.5	-2,598.3	2,620.9	0.00	0.00	
9,100.0	0.32	239.55	8,532.3	343.2	-2,598.8	2,621.4	0.00	0.00	
9,200.0	0.32	239.55	8,632.3	343.0	-2,599.3	2,621.8	0.00	0.00	
9,300.0	0.32	239.55	8,732.3	342.7	-2,599.8	2,622.3	0.00	0.00	
9,400.0	0.32	239.55	8,832.3	342.4	-2,600.3	2,622.7	0.00	0.00	
9,500.0	0.32	239.55	8,932.3	342.1	-2,600.8	2,623.2	0.00	0.00	
9,600.0	0.32	239.55	9,032.3	341.8	-2,601.3	2,623.6	0.00	0.00	
9,700.0	0.32	239.55	9,132.3	341.5	-2,601.7	2,624.1	0.00	0.00	
9,800.0	0.32	239.55	9,232.3	341.2	-2,602.2	2,624.5	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well NP EF14B-27 P27 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 6675.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	WELL @ 6675.0ft (Original Well Elev)
Site:	P27 595 (S27-T5S-R95W)	North Reference:	True
Well:	NP EF14B-27 P27 595	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
9,900.0	0.32	239.55	9,332.3	341.0	-2,602.7	2,625.0	0.00	0.00	
10,000.0	0.32	239.55	9,432.3	340.7	-2,603.2	2,625.4	0.00	0.00	
10,100.0	0.32	239.55	9,532.3	340.4	-2,603.7	2,625.8	0.00	0.00	
10,200.0	0.32	239.55	9,632.3	340.1	-2,604.2	2,626.3	0.00	0.00	
10,300.0	0.32	239.55	9,732.3	339.8	-2,604.7	2,626.7	0.00	0.00	
10,400.0	0.32	239.55	9,832.3	339.5	-2,605.2	2,627.2	0.00	0.00	
10,500.0	0.32	239.55	9,932.3	339.2	-2,605.6	2,627.6	0.00	0.00	
10,600.0	0.32	239.55	10,032.3	338.9	-2,606.1	2,628.1	0.00	0.00	
10,617.7	0.32	239.55	10,050.0	338.9	-2,606.2	2,628.2	0.00	0.00	Rollins TVD - P27 595 EF14B-27 BHL
10,700.0	0.32	239.55	10,132.3	338.7	-2,606.6	2,628.5	0.00	0.00	
10,717.7	0.32	239.55	10,150.0	338.6	-2,606.7	2,628.6	0.00	0.00	

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									
P27 595 EF14B-27 BHL	0.00	0.00	10,050.0	338.9	-2,606.2	1,646,311.42	2,283,454.23	39.580376	-108.042533
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									
P27 595 EF14B-27 TGT	0.00	0.00	6,490.0	348.9	-2,589.2	1,646,320.95	2,283,471.51	39.580404	-108.042473
- plan hits target center									
- Point									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,017.6	6,450.0	Williams Fork (TVD)				
7,057.6	6,490.0	Top of Gas (TVD)				
10,617.7	10,050.0	Rollins TVD				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.0	200.0	0.0	0.0	KOP @ 200'	
1,058.3	1,029.7	25.3	-187.9	EOB; Inc=25.75°	
6,199.4	5,660.3	323.6	-2,401.3	Start Drop -3.00	
7,057.6	6,490.0	348.9	-2,589.2	EOD; Inc=0°	
10,717.7	10,150.0	348.7	-2,589.5	Drillers TD @ 10,150' TVD	