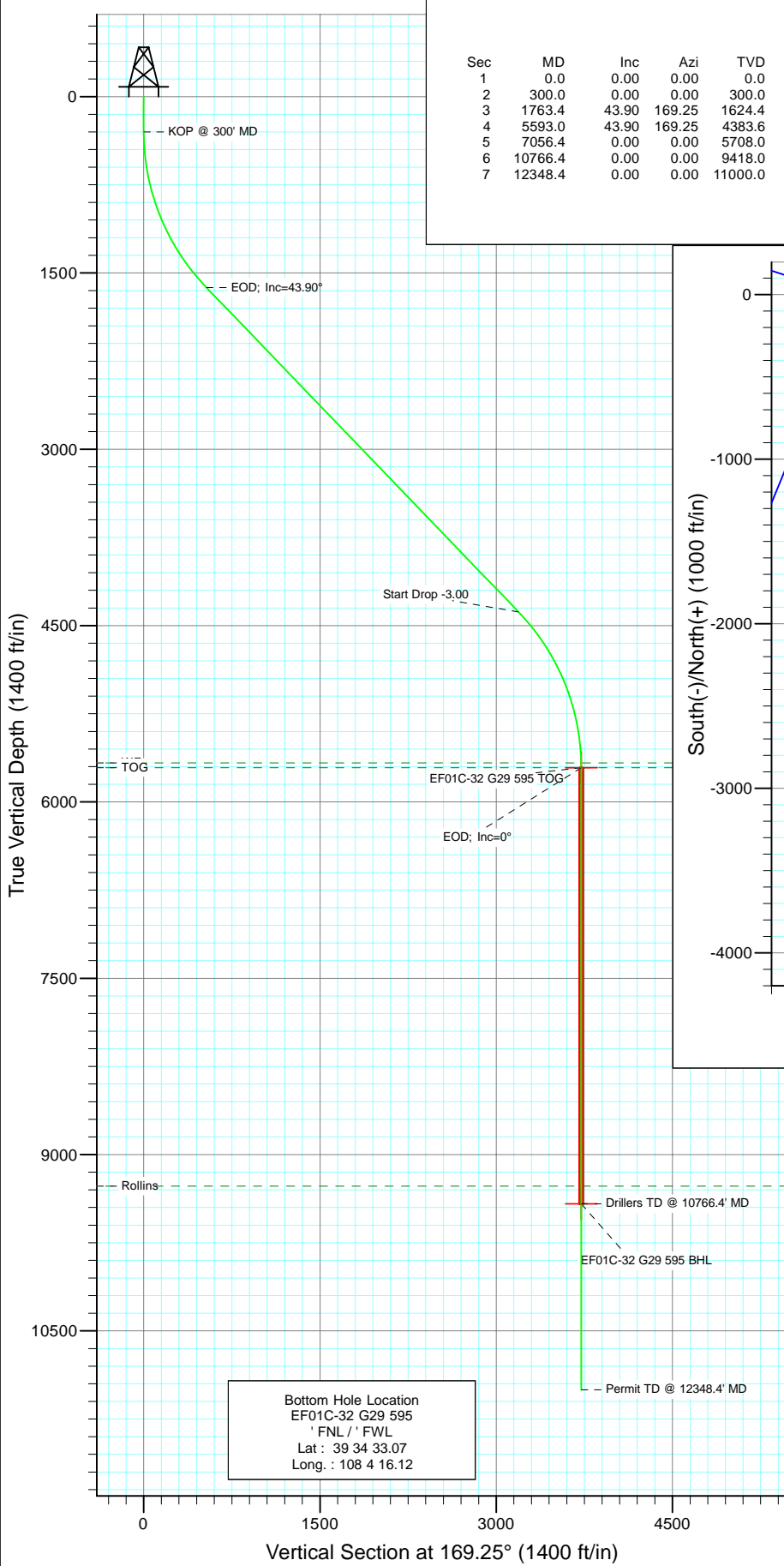
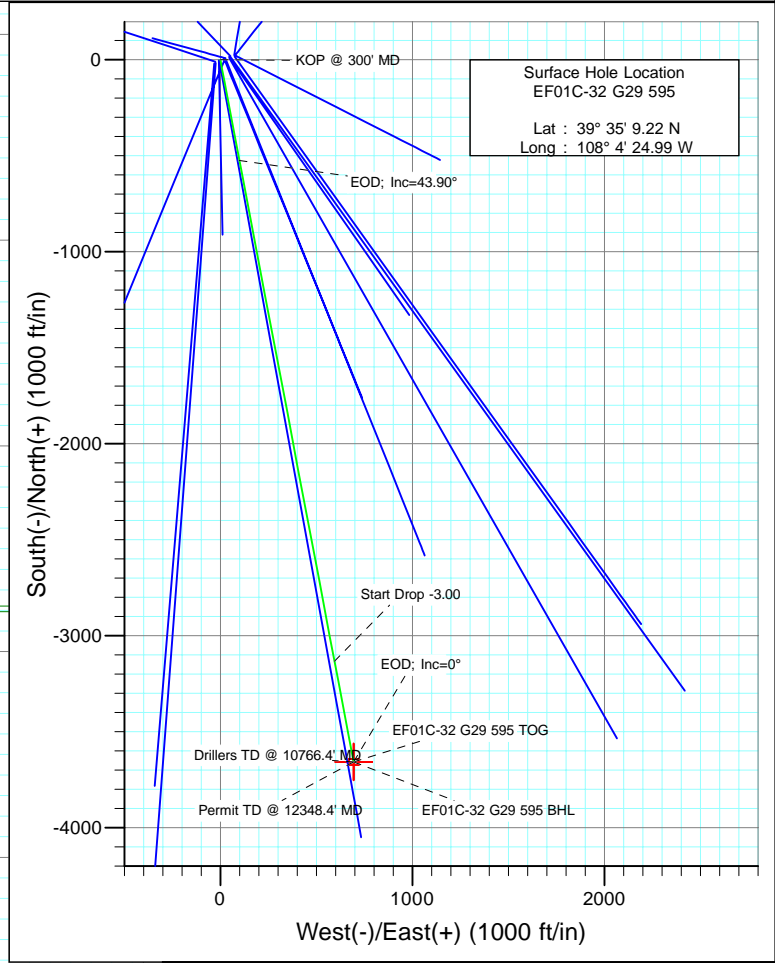




Project: North Piceance
 Site: G29 595
 Well: EF01C-32 G29 595
 Wellbore: DD
 Design: Plan #1



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	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	1763.4	43.90	169.25	1624.4	-524.4	99.6	3.00	169.25	533.8	
4	5593.0	43.90	169.25	4383.6	-3133.3	594.9	0.00	0.00	3189.3	
5	7056.4	0.00	0.00	5708.0	-3657.7	694.5	3.00	180.00	3723.0	EF01C-32 G29 595 TOG
6	10766.4	0.00	0.00	9418.0	-3657.7	694.5	0.00	0.00	3723.0	EF01C-32 G29 595 BHL
7	12348.4	0.00	0.00	11000.0	-3657.7	694.5	0.00	0.00	3723.0	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
5668.0	7016.4	WF
5708.0	7056.4	TOG
9268.0	10616.4	Rollins

Azimuths to True North
 Magnetic North: 10.50°

Magnetic Field
 Strength: 52417.7snT
 Dip Angle: 65.84°
 Date: 6/18/2010
 Model: IGRF200510

DESIGN DETAILS: Plan #1					
105XXX; BH					
KBE @ 6118.0ft (Original Well Elev)					
Target	Azimuth	Origin	N/S	E/W	From TVD
EF01C-32 G29 595 BHL	169.25	Slot	0.0	0.0	0.0

Cathedral Energy Services

Planning Report

Database: EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference: Well EF01C-32 G29 595
Company: EnCana Oil & Gas (USA) Inc	TVD Reference: KBE @ 6118.0ft (Original Well Elev)
Project: North Piceance	MD Reference: KBE @ 6118.0ft (Original Well Elev)
Site: G29 595	North Reference: True
Well: EF01C-32 G29 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 G29 595			
Site Position:	Northing: 1,648,557.90 ft	Latitude: 39° 35' 9.12 N	
From: Lat/Long	Easting: 2,274,729.57 ft	Longitude: 108° 4' 25.32 W	
Position Uncertainty: 0.0 ft	Slot Radius: 13.200 in	Grid Convergence: -1.62 °	

Well EF01C-32 G29 595					
Well Position	+N/-S 0.0 ft	Northing: 1,648,567.26 ft	Latitude: 39° 35' 9.22 N		
	+E/-W 0.0 ft	Easting: 2,274,755.68 ft	Longitude: 108° 4' 24.99 W		
Position Uncertainty	0.0 ft	Wellhead Elevation: ft	Ground Level: 6,003.0 ft		

Wellbore DD					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	6/18/2010	(°) 10.50	(°) 65.84	(nT) 52,418

Design Plan #1				
Audit Notes:				
Version:	Phase: PLAN	Tie On Depth: 0.0		
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	169.25

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,763.4	43.90	169.25	1,624.4	-524.4	99.6	3.00	3.00	0.00	169.25	
5,593.0	43.90	169.25	4,383.6	-3,133.3	594.9	0.00	0.00	0.00	0.00	
7,056.4	0.00	0.00	5,708.0	-3,657.7	694.5	3.00	-3.00	0.00	180.00	EF01C-32 G29 595 T
10,766.4	0.00	0.00	9,418.0	-3,657.7	694.5	0.00	0.00	0.00	0.00	EF01C-32 G29 595 B
12,348.4	0.00	0.00	11,000.0	-3,657.7	694.5	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 EF01C-32 G29 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6118.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	KBE @ 6118.0ft (Original Well Elev)
Site:	G29 595	North Reference:	True
Well:	EF01C-32 G29 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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300' MD
400.0	3.00	169.25	400.0	-2.6	0.5	2.6	3.00	3.00	
500.0	6.00	169.25	499.6	-10.3	2.0	10.5	3.00	3.00	
600.0	9.00	169.25	598.8	-23.1	4.4	23.5	3.00	3.00	
700.0	12.00	169.25	697.1	-41.0	7.8	41.7	3.00	3.00	
800.0	15.00	169.25	794.3	-63.9	12.1	65.1	3.00	3.00	
900.0	18.00	169.25	890.2	-91.8	17.4	93.5	3.00	3.00	
1,000.0	21.00	169.25	984.4	-124.6	23.7	126.9	3.00	3.00	
1,100.0	24.00	169.25	1,076.8	-162.2	30.8	165.1	3.00	3.00	
1,200.0	27.00	169.25	1,167.1	-204.5	38.8	208.2	3.00	3.00	
1,300.0	30.00	169.25	1,254.9	-251.4	47.7	255.9	3.00	3.00	
1,400.0	33.00	169.25	1,340.2	-302.7	57.5	308.1	3.00	3.00	
1,500.0	36.00	169.25	1,422.6	-358.3	68.0	364.8	3.00	3.00	
1,600.0	39.00	169.25	1,501.9	-418.1	79.4	425.6	3.00	3.00	
1,700.0	42.00	169.25	1,577.9	-481.9	91.5	490.6	3.00	3.00	
1,763.4	43.90	169.25	1,624.4	-524.4	99.6	533.8	3.00	3.00	EOD; Inc=43.90°
1,800.0	43.90	169.25	1,650.7	-549.3	104.3	559.1	0.00	0.00	
1,900.0	43.90	169.25	1,722.8	-617.4	117.2	628.5	0.00	0.00	
2,000.0	43.90	169.25	1,794.8	-685.6	130.2	697.8	0.00	0.00	
2,100.0	43.90	169.25	1,866.9	-753.7	143.1	767.2	0.00	0.00	
2,200.0	43.90	169.25	1,938.9	-821.8	156.0	836.5	0.00	0.00	
2,300.0	43.90	169.25	2,011.0	-889.9	169.0	905.8	0.00	0.00	
2,400.0	43.90	169.25	2,083.0	-958.1	181.9	975.2	0.00	0.00	
2,500.0	43.90	169.25	2,155.1	-1,026.2	194.8	1,044.5	0.00	0.00	
2,600.0	43.90	169.25	2,227.1	-1,094.3	207.8	1,113.9	0.00	0.00	
2,700.0	43.90	169.25	2,299.2	-1,162.5	220.7	1,183.2	0.00	0.00	
2,800.0	43.90	169.25	2,371.2	-1,230.6	233.7	1,252.6	0.00	0.00	
2,900.0	43.90	169.25	2,443.3	-1,298.7	246.6	1,321.9	0.00	0.00	
3,000.0	43.90	169.25	2,515.3	-1,366.8	259.5	1,391.2	0.00	0.00	
3,100.0	43.90	169.25	2,587.4	-1,435.0	272.5	1,460.6	0.00	0.00	
3,200.0	43.90	169.25	2,659.5	-1,503.1	285.4	1,529.9	0.00	0.00	
3,300.0	43.90	169.25	2,731.5	-1,571.2	298.3	1,599.3	0.00	0.00	
3,400.0	43.90	169.25	2,803.6	-1,639.3	311.3	1,668.6	0.00	0.00	
3,500.0	43.90	169.25	2,875.6	-1,707.5	324.2	1,738.0	0.00	0.00	
3,600.0	43.90	169.25	2,947.7	-1,775.6	337.1	1,807.3	0.00	0.00	
3,700.0	43.90	169.25	3,019.7	-1,843.7	350.1	1,876.6	0.00	0.00	
3,800.0	43.90	169.25	3,091.8	-1,911.8	363.0	1,946.0	0.00	0.00	
3,900.0	43.90	169.25	3,163.8	-1,980.0	375.9	2,015.3	0.00	0.00	
4,000.0	43.90	169.25	3,235.9	-2,048.1	388.9	2,084.7	0.00	0.00	
4,100.0	43.90	169.25	3,307.9	-2,116.2	401.8	2,154.0	0.00	0.00	
4,200.0	43.90	169.25	3,380.0	-2,184.3	414.7	2,223.4	0.00	0.00	
4,300.0	43.90	169.25	3,452.0	-2,252.5	427.7	2,292.7	0.00	0.00	
4,400.0	43.90	169.25	3,524.1	-2,320.6	440.6	2,362.0	0.00	0.00	
4,500.0	43.90	169.25	3,596.1	-2,388.7	453.6	2,431.4	0.00	0.00	
4,600.0	43.90	169.25	3,668.2	-2,456.8	466.5	2,500.7	0.00	0.00	
4,700.0	43.90	169.25	3,740.2	-2,525.0	479.4	2,570.1	0.00	0.00	
4,800.0	43.90	169.25	3,812.3	-2,593.1	492.4	2,639.4	0.00	0.00	
4,900.0	43.90	169.25	3,884.3	-2,661.2	505.3	2,708.8	0.00	0.00	
5,000.0	43.90	169.25	3,956.4	-2,729.3	518.2	2,778.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well EF01C-32 G29 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6118.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	KBE @ 6118.0ft (Original Well Elev)
Site:	G29 595	North Reference:	True
Well:	EF01C-32 G29 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	43.90	169.25	4,028.5	-2,797.5	531.2	2,847.4	0.00	0.00	
5,200.0	43.90	169.25	4,100.5	-2,865.6	544.1	2,916.8	0.00	0.00	
5,300.0	43.90	169.25	4,172.6	-2,933.7	557.0	2,986.1	0.00	0.00	
5,400.0	43.90	169.25	4,244.6	-3,001.8	570.0	3,055.5	0.00	0.00	
5,500.0	43.90	169.25	4,316.7	-3,070.0	582.9	3,124.8	0.00	0.00	
5,593.0	43.90	169.25	4,383.6	-3,133.3	594.9	3,189.3	0.00	0.00	Start Drop -3.00
5,600.0	43.69	169.25	4,388.7	-3,138.1	595.8	3,194.2	3.00	-3.00	
5,700.0	40.69	169.25	4,462.8	-3,204.1	608.4	3,261.3	3.00	-3.00	
5,800.0	37.69	169.25	4,540.3	-3,266.1	620.2	3,324.5	3.00	-3.00	
5,900.0	34.69	169.25	4,621.0	-3,324.1	631.2	3,383.5	3.00	-3.00	
6,000.0	31.69	169.25	4,704.7	-3,377.9	641.4	3,438.3	3.00	-3.00	
6,100.0	28.69	169.25	4,791.1	-3,427.3	650.8	3,488.6	3.00	-3.00	
6,200.0	25.69	169.25	4,880.0	-3,472.2	659.3	3,534.2	3.00	-3.00	
6,300.0	22.69	169.25	4,971.2	-3,512.5	666.9	3,575.2	3.00	-3.00	
6,400.0	19.69	169.25	5,064.5	-3,548.0	673.7	3,611.4	3.00	-3.00	
6,500.0	16.69	169.25	5,159.5	-3,578.6	679.5	3,642.6	3.00	-3.00	
6,600.0	13.69	169.25	5,256.0	-3,604.4	684.4	3,668.8	3.00	-3.00	
6,700.0	10.69	169.25	5,353.7	-3,625.1	688.3	3,689.9	3.00	-3.00	
6,800.0	7.69	169.25	5,452.4	-3,640.8	691.3	3,705.9	3.00	-3.00	
6,900.0	4.69	169.25	5,551.8	-3,651.4	693.3	3,716.6	3.00	-3.00	
7,000.0	1.69	169.25	5,651.6	-3,656.9	694.3	3,722.2	3.00	-3.00	
7,016.4	1.20	169.25	5,668.0	-3,657.3	694.4	3,722.6	3.00	-3.00	WF
7,056.4	0.00	0.00	5,708.0	-3,657.7	694.5	3,723.0	3.00	-3.00	EOD; Inc=0° - TOG - EF01C-32 G29 595 TOG
7,100.0	0.00	0.00	5,751.6	-3,657.7	694.5	3,723.0	0.00	0.00	
7,200.0	0.00	0.00	5,851.6	-3,657.7	694.5	3,723.0	0.00	0.00	
7,300.0	0.00	0.00	5,951.6	-3,657.7	694.5	3,723.0	0.00	0.00	
7,400.0	0.00	0.00	6,051.6	-3,657.7	694.5	3,723.0	0.00	0.00	
7,500.0	0.00	0.00	6,151.6	-3,657.7	694.5	3,723.0	0.00	0.00	
7,600.0	0.00	0.00	6,251.6	-3,657.7	694.5	3,723.0	0.00	0.00	
7,700.0	0.00	0.00	6,351.6	-3,657.7	694.5	3,723.0	0.00	0.00	
7,800.0	0.00	0.00	6,451.6	-3,657.7	694.5	3,723.0	0.00	0.00	
7,900.0	0.00	0.00	6,551.6	-3,657.7	694.5	3,723.0	0.00	0.00	
8,000.0	0.00	0.00	6,651.6	-3,657.7	694.5	3,723.0	0.00	0.00	
8,100.0	0.00	0.00	6,751.6	-3,657.7	694.5	3,723.0	0.00	0.00	
8,200.0	0.00	0.00	6,851.6	-3,657.7	694.5	3,723.0	0.00	0.00	
8,300.0	0.00	0.00	6,951.6	-3,657.7	694.5	3,723.0	0.00	0.00	
8,400.0	0.00	0.00	7,051.6	-3,657.7	694.5	3,723.0	0.00	0.00	
8,500.0	0.00	0.00	7,151.6	-3,657.7	694.5	3,723.0	0.00	0.00	
8,600.0	0.00	0.00	7,251.6	-3,657.7	694.5	3,723.0	0.00	0.00	
8,700.0	0.00	0.00	7,351.6	-3,657.7	694.5	3,723.0	0.00	0.00	
8,800.0	0.00	0.00	7,451.6	-3,657.7	694.5	3,723.0	0.00	0.00	
8,900.0	0.00	0.00	7,551.6	-3,657.7	694.5	3,723.0	0.00	0.00	
9,000.0	0.00	0.00	7,651.6	-3,657.7	694.5	3,723.0	0.00	0.00	
9,100.0	0.00	0.00	7,751.6	-3,657.7	694.5	3,723.0	0.00	0.00	
9,200.0	0.00	0.00	7,851.6	-3,657.7	694.5	3,723.0	0.00	0.00	
9,300.0	0.00	0.00	7,951.6	-3,657.7	694.5	3,723.0	0.00	0.00	
9,400.0	0.00	0.00	8,051.6	-3,657.7	694.5	3,723.0	0.00	0.00	
9,500.0	0.00	0.00	8,151.6	-3,657.7	694.5	3,723.0	0.00	0.00	
9,600.0	0.00	0.00	8,251.6	-3,657.7	694.5	3,723.0	0.00	0.00	
9,700.0	0.00	0.00	8,351.6	-3,657.7	694.5	3,723.0	0.00	0.00	
9,800.0	0.00	0.00	8,451.6	-3,657.7	694.5	3,723.0	0.00	0.00	
9,900.0	0.00	0.00	8,551.6	-3,657.7	694.5	3,723.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database: EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference: Well EF01C-32 G29 595
Company: EnCana Oil & Gas (USA) Inc	TVD Reference: KBE @ 6118.0ft (Original Well Elev)
Project: North Piceance	MD Reference: KBE @ 6118.0ft (Original Well Elev)
Site: G29 595	North Reference: True
Well: EF01C-32 G29 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
10,000.0	0.00	0.00	8,651.6	-3,657.7	694.5	3,723.0	0.00	0.00	
10,100.0	0.00	0.00	8,751.6	-3,657.7	694.5	3,723.0	0.00	0.00	
10,200.0	0.00	0.00	8,851.6	-3,657.7	694.5	3,723.0	0.00	0.00	
10,300.0	0.00	0.00	8,951.6	-3,657.7	694.5	3,723.0	0.00	0.00	
10,400.0	0.00	0.00	9,051.6	-3,657.7	694.5	3,723.0	0.00	0.00	
10,500.0	0.00	0.00	9,151.6	-3,657.7	694.5	3,723.0	0.00	0.00	
10,600.0	0.00	0.00	9,251.6	-3,657.7	694.5	3,723.0	0.00	0.00	
10,616.4	0.00	0.00	9,268.0	-3,657.7	694.5	3,723.0	0.00	0.00	Rollins
10,700.0	0.00	0.00	9,351.6	-3,657.7	694.5	3,723.0	0.00	0.00	
10,766.4	0.00	0.00	9,418.0	-3,657.7	694.5	3,723.0	0.00	0.00	Drillers TD @ 10766.4' MD - EF01C-32 G29 59
10,800.0	0.00	0.00	9,451.6	-3,657.7	694.5	3,723.0	0.00	0.00	
10,900.0	0.00	0.00	9,551.6	-3,657.7	694.5	3,723.0	0.00	0.00	
11,000.0	0.00	0.00	9,651.6	-3,657.7	694.5	3,723.0	0.00	0.00	
11,100.0	0.00	0.00	9,751.6	-3,657.7	694.5	3,723.0	0.00	0.00	
11,200.0	0.00	0.00	9,851.6	-3,657.7	694.5	3,723.0	0.00	0.00	
11,300.0	0.00	0.00	9,951.6	-3,657.7	694.5	3,723.0	0.00	0.00	
11,400.0	0.00	0.00	10,051.6	-3,657.7	694.5	3,723.0	0.00	0.00	
11,500.0	0.00	0.00	10,151.6	-3,657.7	694.5	3,723.0	0.00	0.00	
11,600.0	0.00	0.00	10,251.6	-3,657.7	694.5	3,723.0	0.00	0.00	
11,700.0	0.00	0.00	10,351.6	-3,657.7	694.5	3,723.0	0.00	0.00	
11,800.0	0.00	0.00	10,451.6	-3,657.7	694.5	3,723.0	0.00	0.00	
11,900.0	0.00	0.00	10,551.6	-3,657.7	694.5	3,723.0	0.00	0.00	
12,000.0	0.00	0.00	10,651.6	-3,657.7	694.5	3,723.0	0.00	0.00	
12,100.0	0.00	0.00	10,751.6	-3,657.7	694.5	3,723.0	0.00	0.00	
12,200.0	0.00	0.00	10,851.6	-3,657.7	694.5	3,723.0	0.00	0.00	
12,300.0	0.00	0.00	10,951.6	-3,657.7	694.5	3,723.0	0.00	0.00	
12,348.4	0.00	0.00	11,000.0	-3,657.7	694.5	3,723.0	0.00	0.00	Permit TD @ 12348.4' MD

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
EF01C-32 G29 595 BHL - hit/miss target - Shape - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	9,418.0	-3,657.7	694.5	1,644,891.41	2,275,346.32	39° 34' 33.07 N	108° 4' 16.12 W
EF01C-32 G29 595 TOC - plan hits target center - Point	0.00	0.00	5,708.0	-3,657.7	694.5	1,644,891.36	2,275,346.30	39° 34' 33.07 N	108° 4' 16.12 W

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,016.4	5,668.0	WF		0.00	
7,056.4	5,708.0	TOG		0.00	
10,616.4	9,268.0	Rollins		0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well EF01C-32 G29 595
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6118.0ft (Original Well Elev)
Project:	North Piceance	MD Reference:	KBE @ 6118.0ft (Original Well Elev)
Site:	G29 595	North Reference:	True
Well:	EF01C-32 G29 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP @ 300' MD
1,763.4	1,624.4	-524.4	99.6	EOD; Inc=43.90°
5,593.0	4,383.6	-3,133.3	594.9	Start Drop -3.00
7,056.4	5,708.0	-3,657.7	694.5	EOD; Inc=0°
10,766.4	9,418.0	-3,657.7	694.5	Drillers TD @ 10766.4' MD
12,348.4	11,000.0	-3,657.7	694.5	Permit TD @ 12348.4' MD