Project: North Piceance
Site: G29 595
Well: DH05-20 G29 595
Wellbore: Hz
Design: Plan #1

CATHEDRAL

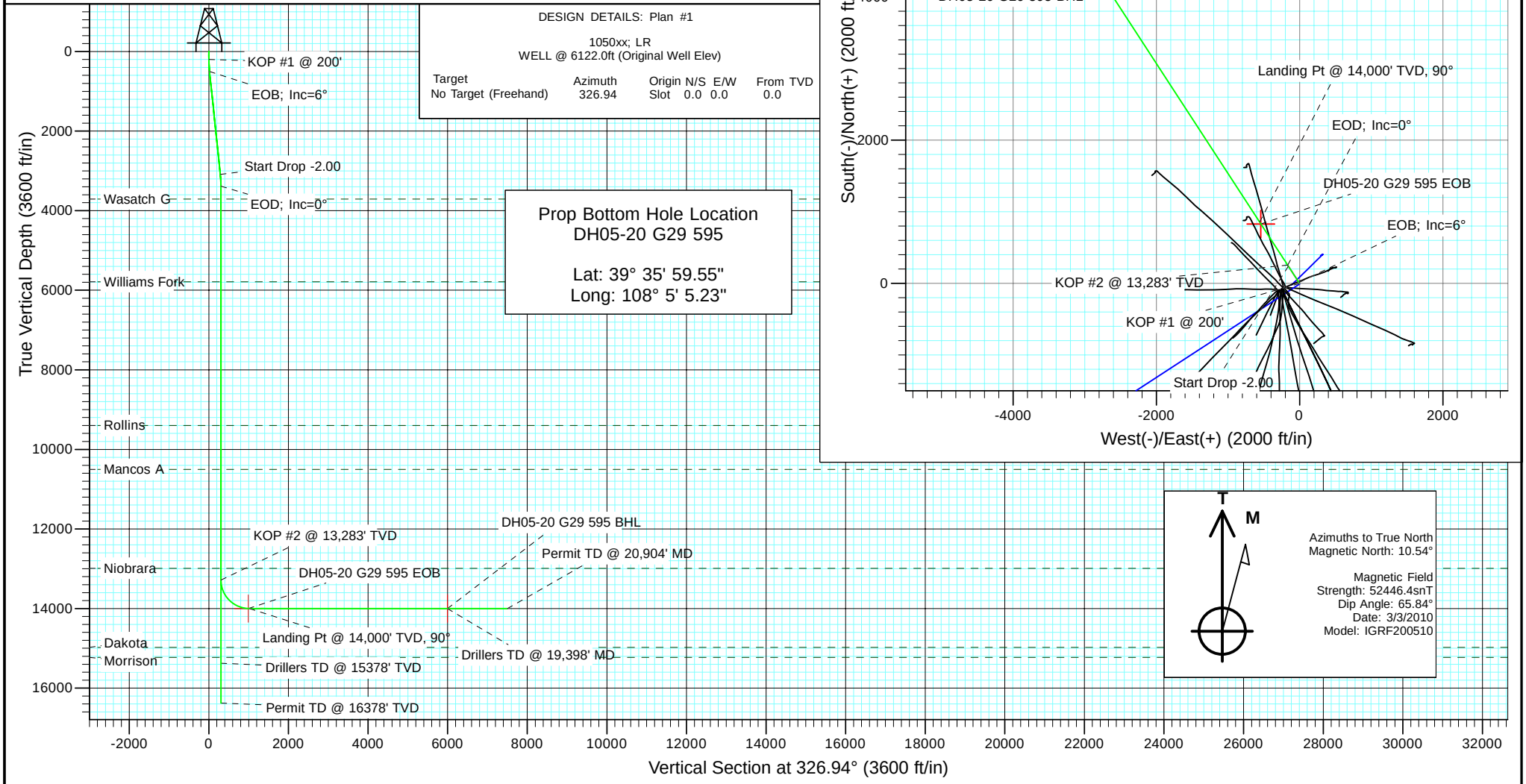
SECTION DETAILS

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	500.0	6.00	326.94	499.5	13.1	-8.6	2.00	326.94	15.7	
4	3100.0	6.00	326.94	3085.2	240.9	-156.8	0.00	0.00	287.5	
5	3400.0	0.00	0.00	3384.7	254.1	-165.4	2.00	180.00	303.2	
6	13299.1	0.00	0.00	13283.8	254.1	-165.4	0.00	0.00	303.2	
7	14424.1	90.00	326.94	14000.0	854.3	-556.1	8.00	326.94	1019.4	
8	19398.0	90.00	326.94	14000.0	5022.9	-3269.5	0.00	0.00	5993.2	DH05-20 G29 595 BHL
9	20904.8	90.00	326.94	14000.0	6285.7	-4091.5	0.00	0.00	7500.0	

DESIGN DETAILS: Plan #1

1050xx; LR
WELL @ 6122.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
No Target (Freehand)	326.94	Slot	0.0	0.0	0.0



Prop Bottom Hole Location
DH05-20 G29 595

Lat: 39° 35' 59.55"
Long: 108° 5' 5.23"

Azimuths to True North
Magnetic North: 10.54°

Magnetic Field
Strength: 52446.4snT
Dip Angle: 65.84°
Date: 3/3/2010
Model: IGRF200510

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well DH05-20 G29 595
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 6122.0ft (Original Well Elev)
Project:	North Piceance	**MD Reference:**	WELL @ 6122.0ft (Original Well Elev)
Site:	G29 595	**North Reference:**	True
Well:	DH05-20 G29 595	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
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:**	1,648,553.92 ft	**Latitude:**	39° 35' 9.05 N
From:	Lat/Long	**Easting:**	2,274,619.81 ft	**Longitude:**	108° 4' 26.72 W
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	-1.62 °

Well	DH05-20 G29 595					
Well Position	**+N/-S**	0.0 ft	**Northing:**	1,648,633.63 ft	**Latitude:**	39° 35' 9.91 N
	+E/-W	0.0 ft	**Easting:**	2,274,877.39 ft	**Longitude:**	108° 4' 23.46 W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	6,100.0 ft

Wellbore	Hz				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	3/3/2010	10.54	65.84	52,446

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	326.94	

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	
500.0	6.00	326.94	499.5	13.1	-8.6	2.00	2.00	0.00	326.94	
3,100.0	6.00	326.94	3,085.2	240.9	-156.8	0.00	0.00	0.00	0.00	
3,400.0	0.00	0.00	3,384.7	254.1	-165.4	2.00	-2.00	0.00	180.00	
13,299.1	0.00	0.00	13,283.8	254.1	-165.4	0.00	0.00	0.00	0.00	
14,424.1	90.00	326.94	14,000.0	854.3	-556.1	8.00	8.00	0.00	326.94	
19,398.0	90.00	326.94	14,000.0	5,022.9	-3,269.5	0.00	0.00	0.00	0.00	DH05-20 G29 595 BH
20,904.8	90.00	326.94	14,000.0	6,285.7	-4,091.5	0.00	0.00	0.00	0.00	

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well DH05-20 G29 595
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 6122.0ft (Original Well Elev)
Project:	North Piceance	**MD Reference:**	WELL @ 6122.0ft (Original Well Elev)
Site:	G29 595	**North Reference:**	True
Well:	DH05-20 G29 595	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
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 #1 @ 200'
300.0	2.00	326.94	300.0	1.5	-1.0	1.7	2.00	2.00	
400.0	4.00	326.94	399.8	5.8	-3.8	7.0	2.00	2.00	
500.0	6.00	326.94	499.5	13.1	-8.6	15.7	2.00	2.00	EOB; Inc=6°
600.0	6.00	326.94	598.9	21.9	-14.3	26.1	0.00	0.00	
700.0	6.00	326.94	698.4	30.7	-20.0	36.6	0.00	0.00	
800.0	6.00	326.94	797.8	39.4	-25.7	47.1	0.00	0.00	
900.0	6.00	326.94	897.3	48.2	-31.4	57.5	0.00	0.00	
1,000.0	6.00	326.94	996.7	57.0	-37.1	68.0	0.00	0.00	
1,100.0	6.00	326.94	1,096.2	65.7	-42.8	78.4	0.00	0.00	
1,200.0	6.00	326.94	1,195.6	74.5	-48.5	88.9	0.00	0.00	
1,300.0	6.00	326.94	1,295.1	83.2	-54.2	99.3	0.00	0.00	
1,400.0	6.00	326.94	1,394.5	92.0	-59.9	109.8	0.00	0.00	
1,500.0	6.00	326.94	1,494.0	100.8	-65.6	120.2	0.00	0.00	
1,600.0	6.00	326.94	1,593.4	109.5	-71.3	130.7	0.00	0.00	
1,700.0	6.00	326.94	1,692.9	118.3	-77.0	141.1	0.00	0.00	
1,800.0	6.00	326.94	1,792.3	127.0	-82.7	151.6	0.00	0.00	
1,900.0	6.00	326.94	1,891.8	135.8	-88.4	162.0	0.00	0.00	
2,000.0	6.00	326.94	1,991.2	144.6	-94.1	172.5	0.00	0.00	
2,100.0	6.00	326.94	2,090.7	153.3	-99.8	182.9	0.00	0.00	
2,200.0	6.00	326.94	2,190.1	162.1	-105.5	193.4	0.00	0.00	
2,300.0	6.00	326.94	2,289.6	170.8	-111.2	203.8	0.00	0.00	
2,400.0	6.00	326.94	2,389.0	179.6	-116.9	214.3	0.00	0.00	
2,500.0	6.00	326.94	2,488.5	188.4	-122.6	224.8	0.00	0.00	
2,600.0	6.00	326.94	2,587.9	197.1	-128.3	235.2	0.00	0.00	
2,700.0	6.00	326.94	2,687.4	205.9	-134.0	245.7	0.00	0.00	
2,800.0	6.00	326.94	2,786.9	214.6	-139.7	256.1	0.00	0.00	
2,900.0	6.00	326.94	2,886.3	223.4	-145.4	266.6	0.00	0.00	
3,000.0	6.00	326.94	2,985.8	232.2	-151.1	277.0	0.00	0.00	
3,100.0	6.00	326.94	3,085.2	240.9	-156.8	287.5	0.00	0.00	Start Drop -2.00
3,200.0	4.00	326.94	3,184.8	248.2	-161.6	296.2	2.00	-2.00	
3,300.0	2.00	326.94	3,284.7	252.6	-164.4	301.4	2.00	-2.00	
3,400.0	0.00	0.00	3,384.7	254.1	-165.4	303.2	2.00	-2.00	EOD; Inc=0°
3,500.0	0.00	0.00	3,484.7	254.1	-165.4	303.2	0.00	0.00	
3,600.0	0.00	0.00	3,584.7	254.1	-165.4	303.2	0.00	0.00	
3,700.0	0.00	0.00	3,684.7	254.1	-165.4	303.2	0.00	0.00	
3,722.3	0.00	0.00	3,707.0	254.1	-165.4	303.2	0.00	0.00	Wasatch G
3,800.0	0.00	0.00	3,784.7	254.1	-165.4	303.2	0.00	0.00	
3,900.0	0.00	0.00	3,884.7	254.1	-165.4	303.2	0.00	0.00	
4,000.0	0.00	0.00	3,984.7	254.1	-165.4	303.2	0.00	0.00	
4,100.0	0.00	0.00	4,084.7	254.1	-165.4	303.2	0.00	0.00	
4,200.0	0.00	0.00	4,184.7	254.1	-165.4	303.2	0.00	0.00	
4,300.0	0.00	0.00	4,284.7	254.1	-165.4	303.2	0.00	0.00	
4,400.0	0.00	0.00	4,384.7	254.1	-165.4	303.2	0.00	0.00	
4,500.0	0.00	0.00	4,484.7	254.1	-165.4	303.2	0.00	0.00	
4,600.0	0.00	0.00	4,584.7	254.1	-165.4	303.2	0.00	0.00	
4,700.0	0.00	0.00	4,684.7	254.1	-165.4	303.2	0.00	0.00	
4,800.0	0.00	0.00	4,784.7	254.1	-165.4	303.2	0.00	0.00	
4,900.0	0.00	0.00	4,884.7	254.1	-165.4	303.2	0.00	0.00	
5,000.0	0.00	0.00	4,984.7	254.1	-165.4	303.2	0.00	0.00	

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Project:	North Piceance	**MD Reference:**	WELL @ 6122.0ft (Original Well Elev)
Site:	G29 595	**North Reference:**	True
Well:	DH05-20 G29 595	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
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	0.00	0.00	5,084.7	254.1	-165.4	303.2	0.00	0.00	
5,200.0	0.00	0.00	5,184.7	254.1	-165.4	303.2	0.00	0.00	
5,300.0	0.00	0.00	5,284.7	254.1	-165.4	303.2	0.00	0.00	
5,400.0	0.00	0.00	5,384.7	254.1	-165.4	303.2	0.00	0.00	
5,500.0	0.00	0.00	5,484.7	254.1	-165.4	303.2	0.00	0.00	
5,600.0	0.00	0.00	5,584.7	254.1	-165.4	303.2	0.00	0.00	
5,700.0	0.00	0.00	5,684.7	254.1	-165.4	303.2	0.00	0.00	
5,799.3	0.00	0.00	5,784.0	254.1	-165.4	303.2	0.00	0.00	Williams Fork
5,800.0	0.00	0.00	5,784.7	254.1	-165.4	303.2	0.00	0.00	
5,900.0	0.00	0.00	5,884.7	254.1	-165.4	303.2	0.00	0.00	
6,000.0	0.00	0.00	5,984.7	254.1	-165.4	303.2	0.00	0.00	
6,100.0	0.00	0.00	6,084.7	254.1	-165.4	303.2	0.00	0.00	
6,200.0	0.00	0.00	6,184.7	254.1	-165.4	303.2	0.00	0.00	
6,300.0	0.00	0.00	6,284.7	254.1	-165.4	303.2	0.00	0.00	
6,400.0	0.00	0.00	6,384.7	254.1	-165.4	303.2	0.00	0.00	
6,500.0	0.00	0.00	6,484.7	254.1	-165.4	303.2	0.00	0.00	
6,600.0	0.00	0.00	6,584.7	254.1	-165.4	303.2	0.00	0.00	
6,700.0	0.00	0.00	6,684.7	254.1	-165.4	303.2	0.00	0.00	
6,800.0	0.00	0.00	6,784.7	254.1	-165.4	303.2	0.00	0.00	
6,900.0	0.00	0.00	6,884.7	254.1	-165.4	303.2	0.00	0.00	
7,000.0	0.00	0.00	6,984.7	254.1	-165.4	303.2	0.00	0.00	
7,100.0	0.00	0.00	7,084.7	254.1	-165.4	303.2	0.00	0.00	
7,200.0	0.00	0.00	7,184.7	254.1	-165.4	303.2	0.00	0.00	
7,300.0	0.00	0.00	7,284.7	254.1	-165.4	303.2	0.00	0.00	
7,400.0	0.00	0.00	7,384.7	254.1	-165.4	303.2	0.00	0.00	
7,500.0	0.00	0.00	7,484.7	254.1	-165.4	303.2	0.00	0.00	
7,600.0	0.00	0.00	7,584.7	254.1	-165.4	303.2	0.00	0.00	
7,700.0	0.00	0.00	7,684.7	254.1	-165.4	303.2	0.00	0.00	
7,800.0	0.00	0.00	7,784.7	254.1	-165.4	303.2	0.00	0.00	
7,900.0	0.00	0.00	7,884.7	254.1	-165.4	303.2	0.00	0.00	
8,000.0	0.00	0.00	7,984.7	254.1	-165.4	303.2	0.00	0.00	
8,100.0	0.00	0.00	8,084.7	254.1	-165.4	303.2	0.00	0.00	
8,200.0	0.00	0.00	8,184.7	254.1	-165.4	303.2	0.00	0.00	
8,300.0	0.00	0.00	8,284.7	254.1	-165.4	303.2	0.00	0.00	
8,400.0	0.00	0.00	8,384.7	254.1	-165.4	303.2	0.00	0.00	
8,500.0	0.00	0.00	8,484.7	254.1	-165.4	303.2	0.00	0.00	
8,600.0	0.00	0.00	8,584.7	254.1	-165.4	303.2	0.00	0.00	
8,700.0	0.00	0.00	8,684.7	254.1	-165.4	303.2	0.00	0.00	
8,800.0	0.00	0.00	8,784.7	254.1	-165.4	303.2	0.00	0.00	
8,900.0	0.00	0.00	8,884.7	254.1	-165.4	303.2	0.00	0.00	
9,000.0	0.00	0.00	8,984.7	254.1	-165.4	303.2	0.00	0.00	
9,100.0	0.00	0.00	9,084.7	254.1	-165.4	303.2	0.00	0.00	
9,200.0	0.00	0.00	9,184.7	254.1	-165.4	303.2	0.00	0.00	
9,300.0	0.00	0.00	9,284.7	254.1	-165.4	303.2	0.00	0.00	
9,400.0	0.00	0.00	9,384.7	254.1	-165.4	303.2	0.00	0.00	
9,414.3	0.00	0.00	9,399.0	254.1	-165.4	303.2	0.00	0.00	Rollins
9,500.0	0.00	0.00	9,484.7	254.1	-165.4	303.2	0.00	0.00	
9,600.0	0.00	0.00	9,584.7	254.1	-165.4	303.2	0.00	0.00	
9,700.0	0.00	0.00	9,684.7	254.1	-165.4	303.2	0.00	0.00	
9,800.0	0.00	0.00	9,784.7	254.1	-165.4	303.2	0.00	0.00	
9,900.0	0.00	0.00	9,884.7	254.1	-165.4	303.2	0.00	0.00	
10,000.0	0.00	0.00	9,984.7	254.1	-165.4	303.2	0.00	0.00	

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Site:	G29 595	**North Reference:**	True
Well:	DH05-20 G29 595	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
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
10,100.0	0.00	0.00	10,084.7	254.1	-165.4	303.2	0.00	0.00	
10,200.0	0.00	0.00	10,184.7	254.1	-165.4	303.2	0.00	0.00	
10,300.0	0.00	0.00	10,284.7	254.1	-165.4	303.2	0.00	0.00	
10,400.0	0.00	0.00	10,384.7	254.1	-165.4	303.2	0.00	0.00	
10,500.0	0.00	0.00	10,484.7	254.1	-165.4	303.2	0.00	0.00	
10,515.3	0.00	0.00	10,500.0	254.1	-165.4	303.2	0.00	0.00	Mancos A
10,600.0	0.00	0.00	10,584.7	254.1	-165.4	303.2	0.00	0.00	
10,700.0	0.00	0.00	10,684.7	254.1	-165.4	303.2	0.00	0.00	
10,800.0	0.00	0.00	10,784.7	254.1	-165.4	303.2	0.00	0.00	
10,900.0	0.00	0.00	10,884.7	254.1	-165.4	303.2	0.00	0.00	
11,000.0	0.00	0.00	10,984.7	254.1	-165.4	303.2	0.00	0.00	
11,100.0	0.00	0.00	11,084.7	254.1	-165.4	303.2	0.00	0.00	
11,200.0	0.00	0.00	11,184.7	254.1	-165.4	303.2	0.00	0.00	
11,300.0	0.00	0.00	11,284.7	254.1	-165.4	303.2	0.00	0.00	
11,400.0	0.00	0.00	11,384.7	254.1	-165.4	303.2	0.00	0.00	
11,500.0	0.00	0.00	11,484.7	254.1	-165.4	303.2	0.00	0.00	
11,600.0	0.00	0.00	11,584.7	254.1	-165.4	303.2	0.00	0.00	
11,700.0	0.00	0.00	11,684.7	254.1	-165.4	303.2	0.00	0.00	
11,800.0	0.00	0.00	11,784.7	254.1	-165.4	303.2	0.00	0.00	
11,900.0	0.00	0.00	11,884.7	254.1	-165.4	303.2	0.00	0.00	
12,000.0	0.00	0.00	11,984.7	254.1	-165.4	303.2	0.00	0.00	
12,100.0	0.00	0.00	12,084.7	254.1	-165.4	303.2	0.00	0.00	
12,200.0	0.00	0.00	12,184.7	254.1	-165.4	303.2	0.00	0.00	
12,300.0	0.00	0.00	12,284.7	254.1	-165.4	303.2	0.00	0.00	
12,400.0	0.00	0.00	12,384.7	254.1	-165.4	303.2	0.00	0.00	
12,500.0	0.00	0.00	12,484.7	254.1	-165.4	303.2	0.00	0.00	
12,600.0	0.00	0.00	12,584.7	254.1	-165.4	303.2	0.00	0.00	
12,700.0	0.00	0.00	12,684.7	254.1	-165.4	303.2	0.00	0.00	
12,800.0	0.00	0.00	12,784.7	254.1	-165.4	303.2	0.00	0.00	
12,900.0	0.00	0.00	12,884.7	254.1	-165.4	303.2	0.00	0.00	
13,000.0	0.00	0.00	12,984.7	254.1	-165.4	303.2	0.00	0.00	
13,003.3	0.00	0.00	12,988.0	254.1	-165.4	303.2	0.00	0.00	Niobrara
13,100.0	0.00	0.00	13,084.7	254.1	-165.4	303.2	0.00	0.00	
13,200.0	0.00	0.00	13,184.7	254.1	-165.4	303.2	0.00	0.00	
13,299.1	0.00	0.00	13,283.8	254.1	-165.4	303.2	0.00	0.00	KOP #2 @ 13,283' TVD
13,300.0	0.07	326.94	13,284.7	254.1	-165.4	303.2	8.00	8.00	
13,400.0	8.07	326.94	13,384.3	260.0	-169.2	310.3	8.00	8.00	
13,500.0	16.07	326.94	13,482.0	277.5	-180.6	331.1	8.00	8.00	
13,600.0	24.07	326.94	13,575.9	306.3	-199.3	365.4	8.00	8.00	
13,700.0	32.07	326.94	13,664.1	345.7	-225.0	412.4	8.00	8.00	
13,800.0	40.07	326.94	13,744.8	395.0	-257.1	471.3	8.00	8.00	
13,900.0	48.07	326.94	13,816.6	453.2	-295.0	540.8	8.00	8.00	
14,000.0	56.07	326.94	13,878.0	519.3	-338.0	619.6	8.00	8.00	
14,100.0	64.07	326.94	13,927.9	591.8	-385.2	706.2	8.00	8.00	
14,200.0	72.07	326.94	13,965.2	669.5	-435.8	798.9	8.00	8.00	
14,300.0	80.07	326.94	13,989.3	750.8	-488.7	895.8	8.00	8.00	
14,394.9	87.66	326.94	13,999.4	829.8	-540.1	990.1	8.00	8.00	DH05-20 G29 595 EOB
14,400.0	88.07	326.94	13,999.6	834.1	-542.9	995.2	8.00	8.00	
14,424.1	90.00	326.94	14,000.0	854.3	-556.1	1,019.4	8.00	8.00	Landing Pt @ 14,000' TVD, 90°
14,500.0	90.00	326.94	14,000.0	917.9	-597.5	1,095.2	0.00	0.00	
14,600.0	90.00	326.94	14,000.0	1,001.7	-652.0	1,195.2	0.00	0.00	
14,700.0	90.00	326.94	14,000.0	1,085.5	-706.6	1,295.2	0.00	0.00	

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well DH05-20 G29 595
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 6122.0ft (Original Well Elev)
Project:	North Piceance	**MD Reference:**	WELL @ 6122.0ft (Original Well Elev)
Site:	G29 595	**North Reference:**	True
Well:	DH05-20 G29 595	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
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
14,800.0	90.00	326.94	14,000.0	1,169.3	-761.1	1,395.2	0.00	0.00	
14,900.0	90.00	326.94	14,000.0	1,253.1	-815.7	1,495.2	0.00	0.00	
15,000.0	90.00	326.94	14,000.0	1,336.9	-870.2	1,595.2	0.00	0.00	
15,100.0	90.00	326.94	14,000.0	1,420.7	-924.8	1,695.2	0.00	0.00	
15,200.0	90.00	326.94	14,000.0	1,504.6	-979.3	1,795.2	0.00	0.00	
15,300.0	90.00	326.94	14,000.0	1,588.4	-1,033.9	1,895.2	0.00	0.00	
15,400.0	90.00	326.94	14,000.0	1,672.2	-1,088.4	1,995.2	0.00	0.00	
15,500.0	90.00	326.94	14,000.0	1,756.0	-1,143.0	2,095.2	0.00	0.00	
15,600.0	90.00	326.94	14,000.0	1,839.8	-1,197.6	2,195.2	0.00	0.00	
15,700.0	90.00	326.94	14,000.0	1,923.6	-1,252.1	2,295.2	0.00	0.00	
15,800.0	90.00	326.94	14,000.0	2,007.4	-1,306.7	2,395.2	0.00	0.00	
15,900.0	90.00	326.94	14,000.0	2,091.2	-1,361.2	2,495.2	0.00	0.00	
16,000.0	90.00	326.94	14,000.0	2,175.0	-1,415.8	2,595.2	0.00	0.00	
16,100.0	90.00	326.94	14,000.0	2,258.8	-1,470.3	2,695.2	0.00	0.00	
16,200.0	90.00	326.94	14,000.0	2,342.6	-1,524.9	2,795.2	0.00	0.00	
16,300.0	90.00	326.94	14,000.0	2,426.5	-1,579.4	2,895.2	0.00	0.00	
16,400.0	90.00	326.94	14,000.0	2,510.3	-1,634.0	2,995.2	0.00	0.00	
16,500.0	90.00	326.94	14,000.0	2,594.1	-1,688.5	3,095.2	0.00	0.00	
16,600.0	90.00	326.94	14,000.0	2,677.9	-1,743.1	3,195.2	0.00	0.00	
16,700.0	90.00	326.94	14,000.0	2,761.7	-1,797.6	3,295.2	0.00	0.00	
16,800.0	90.00	326.94	14,000.0	2,845.5	-1,852.2	3,395.2	0.00	0.00	
16,900.0	90.00	326.94	14,000.0	2,929.3	-1,906.7	3,495.2	0.00	0.00	
17,000.0	90.00	326.94	14,000.0	3,013.1	-1,961.3	3,595.2	0.00	0.00	
17,100.0	90.00	326.94	14,000.0	3,096.9	-2,015.8	3,695.2	0.00	0.00	
17,200.0	90.00	326.94	14,000.0	3,180.7	-2,070.4	3,795.2	0.00	0.00	
17,300.0	90.00	326.94	14,000.0	3,264.5	-2,125.0	3,895.2	0.00	0.00	
17,400.0	90.00	326.94	14,000.0	3,348.4	-2,179.5	3,995.2	0.00	0.00	
17,500.0	90.00	326.94	14,000.0	3,432.2	-2,234.1	4,095.2	0.00	0.00	
17,600.0	90.00	326.94	14,000.0	3,516.0	-2,288.6	4,195.2	0.00	0.00	
17,700.0	90.00	326.94	14,000.0	3,599.8	-2,343.2	4,295.2	0.00	0.00	
17,800.0	90.00	326.94	14,000.0	3,683.6	-2,397.7	4,395.2	0.00	0.00	
17,900.0	90.00	326.94	14,000.0	3,767.4	-2,452.3	4,495.2	0.00	0.00	
18,000.0	90.00	326.94	14,000.0	3,851.2	-2,506.8	4,595.2	0.00	0.00	
18,100.0	90.00	326.94	14,000.0	3,935.0	-2,561.4	4,695.2	0.00	0.00	
18,200.0	90.00	326.94	14,000.0	4,018.8	-2,615.9	4,795.2	0.00	0.00	
18,300.0	90.00	326.94	14,000.0	4,102.6	-2,670.5	4,895.2	0.00	0.00	
18,400.0	90.00	326.94	14,000.0	4,186.4	-2,725.0	4,995.2	0.00	0.00	
18,500.0	90.00	326.94	14,000.0	4,270.3	-2,779.6	5,095.2	0.00	0.00	
18,600.0	90.00	326.94	14,000.0	4,354.1	-2,834.1	5,195.2	0.00	0.00	
18,700.0	90.00	326.94	14,000.0	4,437.9	-2,888.7	5,295.2	0.00	0.00	
18,800.0	90.00	326.94	14,000.0	4,521.7	-2,943.3	5,395.2	0.00	0.00	
18,900.0	90.00	326.94	14,000.0	4,605.5	-2,997.8	5,495.2	0.00	0.00	
19,000.0	90.00	326.94	14,000.0	4,689.3	-3,052.4	5,595.2	0.00	0.00	
19,100.0	90.00	326.94	14,000.0	4,773.1	-3,106.9	5,695.2	0.00	0.00	
19,200.0	90.00	326.94	14,000.0	4,856.9	-3,161.5	5,795.2	0.00	0.00	
19,300.0	90.00	326.94	14,000.0	4,940.7	-3,216.0	5,895.2	0.00	0.00	
19,398.0	90.00	326.94	14,000.0	5,022.9	-3,269.5	5,993.2	0.00	0.00	Drillers TD @ 19,398' MD - DH05-20 G29 595 E
19,400.0	90.00	326.94	14,000.0	5,024.5	-3,270.6	5,995.2	0.00	0.00	
19,500.0	90.00	326.94	14,000.0	5,108.3	-3,325.1	6,095.2	0.00	0.00	
19,600.0	90.00	326.94	14,000.0	5,192.2	-3,379.7	6,195.2	0.00	0.00	
19,700.0	90.00	326.94	14,000.0	5,276.0	-3,434.2	6,295.2	0.00	0.00	
19,800.0	90.00	326.94	14,000.0	5,359.8	-3,488.8	6,395.2	0.00	0.00	

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well DH05-20 G29 595
Company:	EnCana Oil & Gas (USA) Inc	**TVD Reference:**	WELL @ 6122.0ft (Original Well Elev)
Project:	North Piceance	**MD Reference:**	WELL @ 6122.0ft (Original Well Elev)
Site:	G29 595	**North Reference:**	True
Well:	DH05-20 G29 595	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Hz		
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
19,900.0	90.00	326.94	14,000.0	5,443.6	-3,543.3	6,495.2	0.00	0.00	
20,000.0	90.00	326.94	14,000.0	5,527.4	-3,597.9	6,595.2	0.00	0.00	
20,100.0	90.00	326.94	14,000.0	5,611.2	-3,652.4	6,695.2	0.00	0.00	
20,200.0	90.00	326.94	14,000.0	5,695.0	-3,707.0	6,795.2	0.00	0.00	
20,300.0	90.00	326.94	14,000.0	5,778.8	-3,761.5	6,895.2	0.00	0.00	
20,400.0	90.00	326.94	14,000.0	5,862.6	-3,816.1	6,995.2	0.00	0.00	
20,500.0	90.00	326.94	14,000.0	5,946.4	-3,870.7	7,095.2	0.00	0.00	
20,600.0	90.00	326.94	14,000.0	6,030.2	-3,925.2	7,195.2	0.00	0.00	
20,700.0	90.00	326.94	14,000.0	6,114.1	-3,979.8	7,295.2	0.00	0.00	
20,800.0	90.00	326.94	14,000.0	6,197.9	-4,034.3	7,395.2	0.00	0.00	
20,900.0	90.00	326.94	14,000.0	6,281.7	-4,088.9	7,495.2	0.00	0.00	
20,904.8	90.00	326.94	14,000.0	6,285.7	-4,091.5	7,500.0	0.00	0.00	Permit TD @ 20,904' MD

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
DH05-20 G29 595 EOB	0.00	0.00	14,000.0	829.7	-540.2	1,649,478.32	2,274,360.93	39° 35' 18.11 N	108° 4' 30.36 W
- plan misses target center by 0.6ft at 14394.9ft MD (13999.4 TVD, 829.8 N, -540.1 E)									
- Point									
DH05-20 G29 595 BHL	0.00	0.00	14,000.0	5,022.9	-3,269.5	1,653,747.08	2,271,751.47	39° 35' 59.55 N	108° 5' 5.23 W
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,722.3	3,707.0	Wasatch G		0.00	
5,799.3	5,784.0	Williams Fork		0.00	
9,414.3	9,399.0	Rollins		0.00	
10,515.3	10,500.0	Mancos A		0.00	
13,003.3	12,988.0	Niobrara		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
200.0	200.0	0.0	0.0	KOP #1 @ 200'
500.0	499.5	13.1	-8.6	EOB; Inc=6°
3,100.0	3,085.2	240.9	-156.8	Start Drop -2.00
3,400.0	3,384.7	254.1	-165.4	EOD; Inc=0°
13,299.1	13,283.8	254.1	-165.4	KOP #2 @ 13,283' TVD
14,424.1	14,000.0	854.3	-556.1	Landing Pt @ 14,000' TVD, 90°
19,398.0	14,000.0	5,022.8	-3,269.5	Drillers TD @ 19,398' MD
20,904.8	14,000.0	6,285.7	-4,091.5	Permit TD @ 20,904' MD