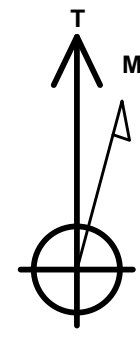
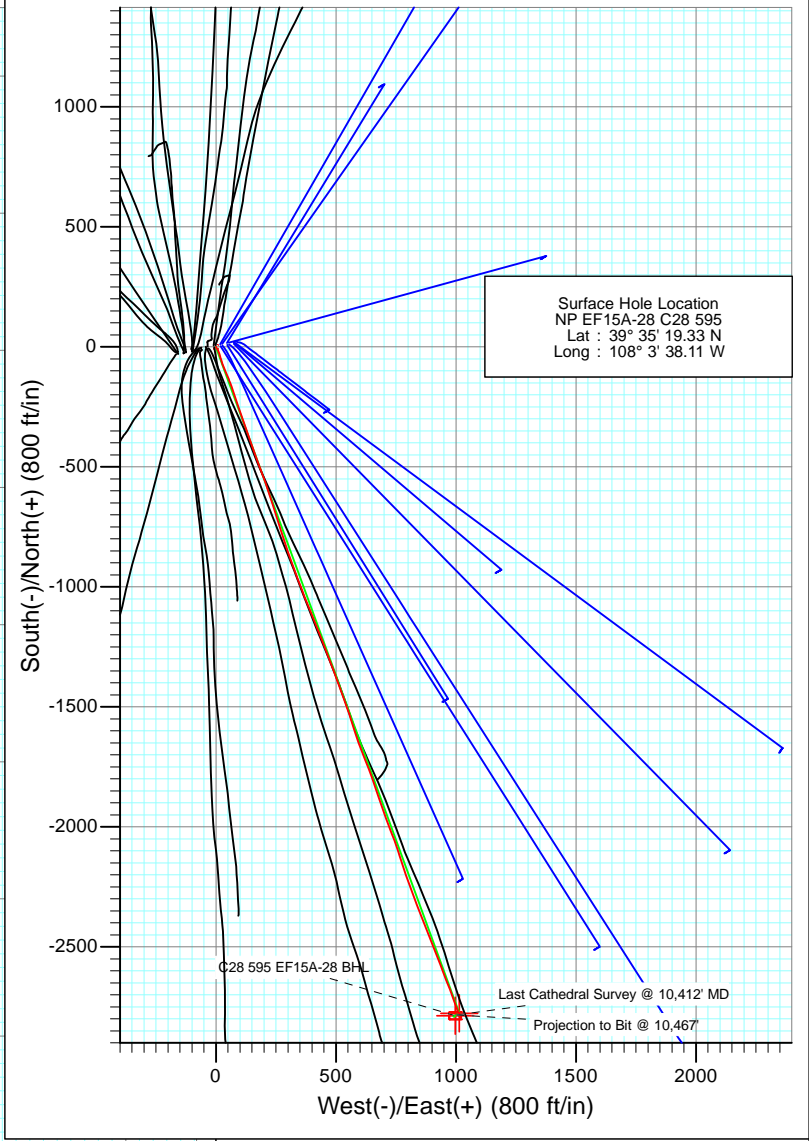
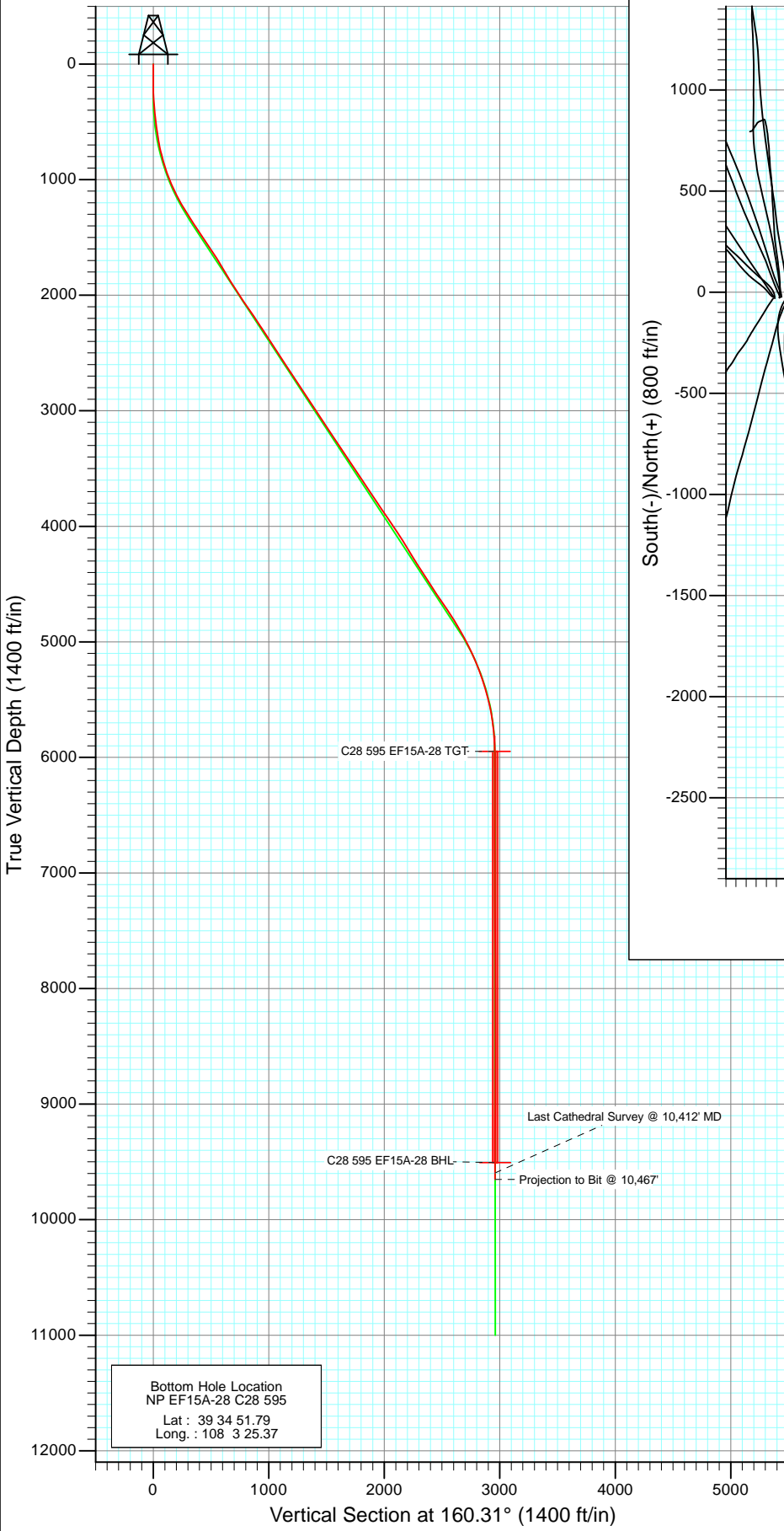




Project: North Piceance
 Site: C28 595 (S28-T5S-R95W)
 Well: NP EF15A-28 C28 595
 Wellbore: DD
 Design: FINAL



Azimuths to True North
 Magnetic North: 10.54°

Magnetic Field
 Strength: 52406.1nT
 Dip Angle: 65.83°
 Date: 4/23/2010
 Model: IGRF2010

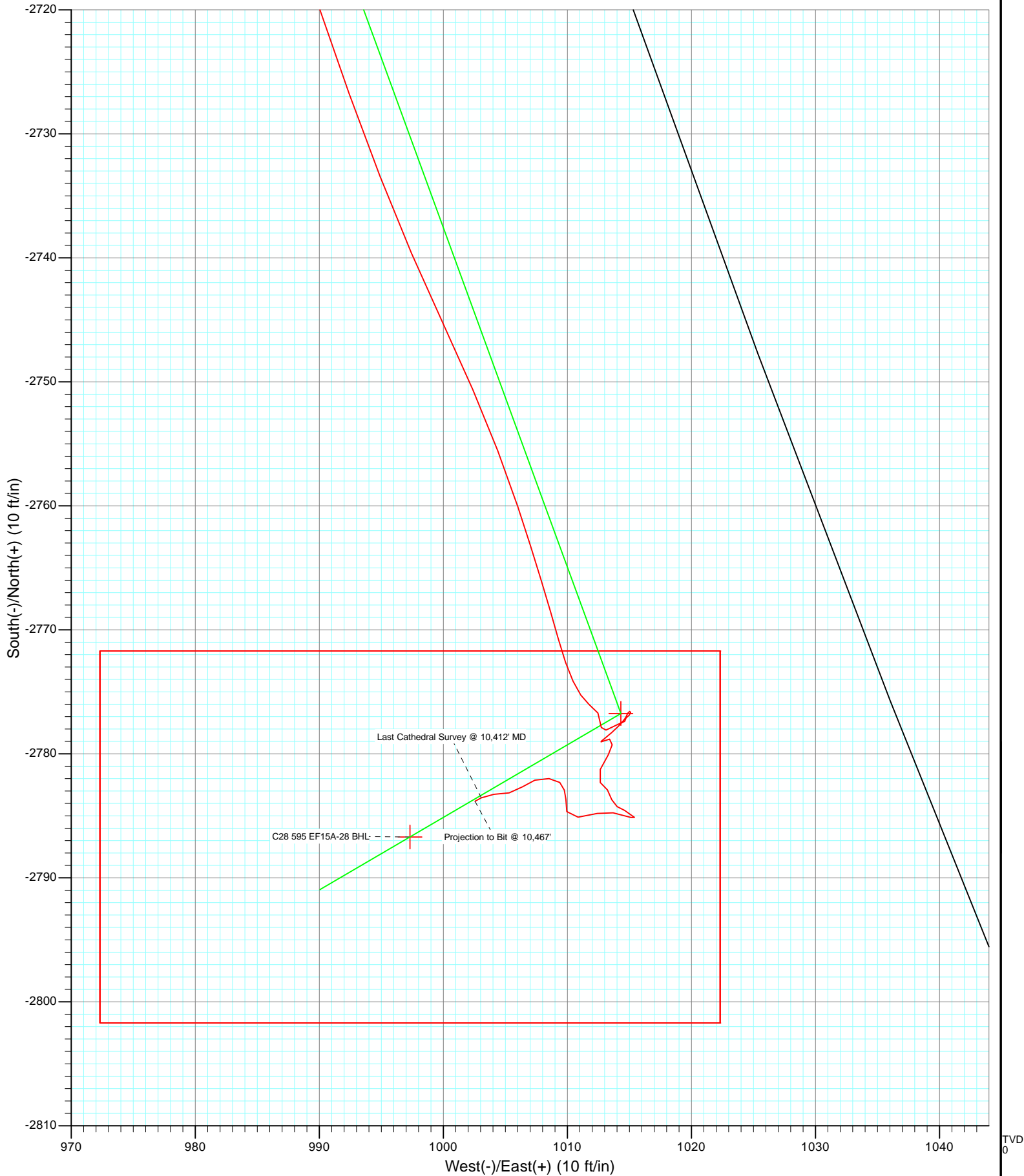
DESIGN DETAILS: DD

105099 (SH), 105180 (MH): LR
 KBE @ 6197.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
C28 595 EF15A-28 BHL	160.31	Slot	0.0	0.0	0.0



Project: North Piceance
Site: C28 595 (S28-T5S-R95W)
Well: NP EF15A-28 C28 595
Wellbore: DD
Design: FINAL



TVD
0

Survey Report

Company: EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference: Well NP EF15A-28 C28 595
Project: North Piceance	TVD Reference: KBE @ 6197.0ft (Original Well Elev)
Site: C28 595 (S28-T5S-R95W)	MD Reference: KBE @ 6197.0ft (Original Well Elev)
Well: NP EF15A-28 C28 595	North Reference: True
Wellbore: DD	Survey Calculation Method: Minimum Curvature
Design: DD	Database: EDM 5000.1 US Multi Users DB

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 C28 595 (S28-T5S-R95W)					
Site Position:	Northing:	1,649,466.64 ft	Latitude:	39° 35' 19.10 N	
From: Lat/Long	Easting:	2,278,319.64 ft	Longitude:	108° 3' 39.81 W	
Position Uncertainty: 0.0 ft	Slot Radius: 13.200 in		Grid Convergence:	-1.62 °	

Well NP EF15A-28 C28 595					
Well Position	+N/-S	0.0 ft	Northing:	1,649,486.31 ft	Latitude: 39° 35' 19.33 N
	+E/-W	0.0 ft	Easting:	2,278,453.40 ft	Longitude: 108° 3' 38.11 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level: 6,175.0 ft

Wellbore DD					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/23/2010	10.54	65.83	52,406

Design DD					
Audit Notes:					
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.0			
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	160.31	

Survey Program		Date 3/22/2011
From (ft)	To (ft)	Survey (Wellbore)
170.0	1,681.0	Survey #1 (DD)
1,747.0	10,467.0	Survey #2 (DD)
		Tool Name
		MWD
		MWD
		Description
		Geolink MWD
		Geolink MWD

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
170.0	0.40	150.40	170.0	-0.5	0.3	0.6	0.24	0.24	
201.0	0.00	31.80	201.0	-0.6	0.3	0.7	1.29	-1.29	
231.0	0.70	178.50	231.0	-0.8	0.4	0.9	2.33	2.33	
262.0	1.80	146.20	262.0	-1.4	0.6	1.5	4.08	3.55	
293.0	2.60	156.60	293.0	-2.4	1.2	2.7	2.87	2.58	
324.0	3.80	141.70	323.9	-3.9	2.1	4.4	4.68	3.87	
354.0	5.00	150.20	353.8	-5.8	3.4	6.6	4.54	4.00	
385.0	5.50	143.20	384.7	-8.2	4.9	9.3	2.62	1.61	
416.0	5.50	150.70	415.6	-10.7	6.5	12.2	2.32	0.00	
446.0	6.50	150.70	445.4	-13.4	8.1	15.3	3.33	3.33	
477.0	6.70	149.50	476.2	-16.5	9.8	18.8	0.78	0.65	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP EF15A-28 C28 595
Project:	North Piceance	TVD Reference:	KBE @ 6197.0ft (Original Well Elev)
Site:	C28 595 (S28-T5S-R95W)	MD Reference:	KBE @ 6197.0ft (Original Well Elev)
Well:	NP EF15A-28 C28 595	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
508.0	6.40	160.70	507.0	-19.7	11.3	22.3	4.23	-0.97	
539.0	6.70	162.60	537.8	-23.0	12.4	25.9	1.19	0.97	
569.0	7.90	158.60	567.5	-26.6	13.7	29.7	4.34	4.00	
600.0	8.60	166.50	598.2	-30.8	15.0	34.1	4.29	2.26	
632.0	9.70	164.00	629.8	-35.8	16.3	39.2	3.65	3.44	
664.0	10.40	161.60	661.3	-41.1	18.0	44.8	2.55	2.19	
695.0	10.90	164.20	691.8	-46.6	19.7	50.5	2.24	1.61	
727.0	12.20	159.90	723.1	-52.7	21.7	56.9	4.87	4.06	
759.0	12.90	163.10	754.4	-59.3	23.9	63.8	3.08	2.19	
791.0	13.90	163.90	785.5	-66.4	26.0	71.2	3.18	3.12	
823.0	15.20	158.50	816.5	-74.0	28.6	79.3	5.87	4.06	
855.0	16.20	160.30	847.3	-82.1	31.6	87.9	3.48	3.12	
887.0	17.90	157.60	877.9	-90.8	35.0	97.3	5.86	5.31	
919.0	18.40	157.60	908.3	-100.0	38.8	107.3	1.56	1.56	
950.0	19.40	155.20	937.6	-109.2	42.8	117.3	4.09	3.23	
982.0	20.30	155.30	967.7	-119.1	47.4	128.1	2.81	2.81	
1,014.0	21.00	158.90	997.7	-129.5	51.8	139.4	4.53	2.19	
1,046.0	22.20	160.90	1,027.4	-140.6	55.8	151.1	4.40	3.75	
1,078.0	24.10	159.60	1,056.8	-152.4	60.1	163.7	6.15	5.94	
1,110.0	26.10	158.90	1,085.8	-165.1	64.9	177.3	6.32	6.25	
1,141.0	27.00	161.70	1,113.5	-178.1	69.5	191.1	4.97	2.90	
1,173.0	26.90	162.00	1,142.1	-191.9	74.0	205.6	0.53	-0.31	
1,205.0	28.20	161.40	1,170.4	-206.0	78.7	220.4	4.15	4.06	
1,237.0	29.40	161.60	1,198.5	-220.6	83.6	235.8	3.76	3.75	
1,269.0	30.50	161.30	1,226.2	-235.7	88.7	251.8	3.47	3.44	
1,364.0	32.40	159.90	1,307.2	-282.5	105.1	301.4	2.14	2.00	
1,460.0	33.10	161.90	1,388.0	-331.5	122.1	353.3	1.34	0.73	
1,556.0	34.00	160.50	1,468.0	-381.8	139.2	406.3	1.24	0.94	
1,651.0	33.70	160.00	1,546.9	-431.6	157.1	459.3	0.43	-0.32	
1,681.0	34.10	159.20	1,571.8	-447.2	162.9	476.0	2.00	1.33	Last Cathedral svy @ 1681'
1,747.0	33.60	160.70	1,626.6	-481.8	175.6	512.8	1.48	-0.76	
1,843.0	31.40	157.90	1,707.6	-530.0	193.7	564.3	2.78	-2.29	
1,936.0	31.50	162.70	1,786.9	-575.7	210.1	612.8	2.69	0.11	
2,031.0	30.50	161.40	1,868.4	-622.2	225.2	661.7	1.27	-1.05	
2,126.0	32.70	162.40	1,949.3	-669.5	240.6	711.5	2.38	2.32	
2,222.0	34.20	162.60	2,029.4	-720.0	256.5	764.3	1.57	1.56	
2,315.0	35.00	162.40	2,105.9	-770.4	272.4	817.1	0.87	0.86	
2,411.0	33.80	161.70	2,185.1	-822.0	289.1	871.3	1.32	-1.25	
2,507.0	34.40	159.90	2,264.6	-872.8	306.8	925.1	1.22	0.62	
2,602.0	32.20	161.00	2,344.0	-921.9	324.3	977.3	2.40	-2.32	
2,697.0	32.60	158.10	2,424.2	-969.6	342.1	1,028.2	1.69	0.42	
2,792.0	32.90	160.20	2,504.1	-1,017.6	360.4	1,079.5	1.24	0.32	
2,887.0	33.80	157.30	2,583.5	-1,066.3	379.3	1,131.7	1.93	0.95	
2,983.0	33.20	158.40	2,663.5	-1,115.4	399.3	1,184.7	0.89	-0.62	
3,078.0	34.10	158.70	2,742.6	-1,164.3	418.5	1,237.3	0.96	0.95	
3,174.0	34.70	157.10	2,821.8	-1,214.6	438.9	1,291.5	1.13	0.62	
3,269.0	32.20	158.80	2,901.1	-1,263.1	458.6	1,343.8	2.81	-2.63	
3,364.0	33.30	160.50	2,981.0	-1,311.3	476.5	1,395.2	1.51	1.16	
3,460.0	33.20	159.70	3,061.3	-1,360.8	494.4	1,447.8	0.47	-0.10	
3,555.0	33.50	160.10	3,140.6	-1,409.8	512.3	1,500.0	0.39	0.32	
3,651.0	33.90	159.50	3,220.5	-1,459.8	530.7	1,553.3	0.54	0.42	
3,746.0	34.50	161.40	3,299.1	-1,510.1	548.6	1,606.7	1.29	0.63	
3,841.0	33.30	162.80	3,377.9	-1,560.6	564.9	1,659.6	1.51	-1.26	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP EF15A-28 C28 595
Project:	North Piceance	TVD Reference:	KBE @ 6197.0ft (Original Well Elev)
Site:	C28 595 (S28-T5S-R95W)	MD Reference:	KBE @ 6197.0ft (Original Well Elev)
Well:	NP EF15A-28 C28 595	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
3,937.0	34.00	160.60	3,457.8	-1,611.0	581.6	1,712.8	1.46	0.73	
4,032.0	34.10	160.80	3,536.6	-1,661.2	599.2	1,766.0	0.16	0.11	
4,127.0	33.40	157.30	3,615.6	-1,710.5	618.0	1,818.7	2.18	-0.74	
4,222.0	34.20	159.20	3,694.5	-1,759.6	637.6	1,871.5	1.40	0.84	
4,317.0	33.50	161.60	3,773.4	-1,809.4	655.3	1,924.5	1.59	-0.74	
4,413.0	34.00	161.40	3,853.2	-1,860.0	672.3	1,977.8	0.53	0.52	
4,509.0	34.10	159.70	3,932.8	-1,910.7	690.2	2,031.5	1.00	0.10	
4,604.0	34.10	161.20	4,011.4	-1,960.9	708.0	2,084.8	0.89	0.00	
4,699.0	32.90	158.60	4,090.7	-2,010.1	726.0	2,137.2	1.97	-1.26	
4,794.0	32.10	159.70	4,170.8	-2,057.8	744.2	2,188.2	1.05	-0.84	
4,890.0	30.60	162.80	4,252.8	-2,105.1	760.2	2,238.2	2.29	-1.56	
4,985.0	33.20	160.20	4,333.4	-2,152.7	776.2	2,288.3	3.09	2.74	
5,080.0	33.00	161.40	4,413.0	-2,201.7	793.3	2,340.2	0.72	-0.21	
5,175.0	32.50	161.00	4,492.9	-2,250.3	809.8	2,391.6	0.57	-0.53	
5,270.0	34.30	160.30	4,572.2	-2,299.7	827.2	2,443.9	1.94	1.89	
5,365.0	33.70	157.90	4,651.0	-2,349.3	846.1	2,497.0	1.55	-0.63	
5,460.0	34.10	157.40	4,729.8	-2,398.3	866.2	2,549.9	0.51	0.42	
5,555.0	31.70	158.80	4,809.6	-2,446.1	885.5	2,601.5	2.65	-2.53	
5,651.0	29.70	158.70	4,892.1	-2,491.8	903.3	2,650.5	2.08	-2.08	
5,746.0	28.80	159.30	4,975.0	-2,535.2	919.9	2,696.9	1.00	-0.95	
5,841.0	25.50	158.70	5,059.5	-2,575.6	935.4	2,740.2	3.49	-3.47	
5,937.0	23.90	159.60	5,146.7	-2,613.1	949.7	2,780.3	1.71	-1.67	
6,032.0	21.00	157.70	5,234.5	-2,646.9	962.9	2,816.6	3.15	-3.05	
6,128.0	18.90	158.00	5,324.8	-2,677.2	975.2	2,849.3	2.19	-2.19	
6,223.0	16.00	162.80	5,415.4	-2,704.0	984.9	2,877.7	3.41	-3.05	
6,318.0	13.20	160.30	5,507.3	-2,726.7	992.4	2,901.7	3.02	-2.95	
6,414.0	11.00	154.80	5,601.2	-2,745.3	1,000.0	2,921.8	2.58	-2.29	
6,509.0	8.30	161.80	5,694.8	-2,760.1	1,006.0	2,937.6	3.09	-2.84	
6,604.0	5.20	164.80	5,789.2	-2,770.7	1,009.3	2,948.8	3.28	-3.26	
6,699.0	2.10	129.50	5,884.0	-2,776.0	1,011.7	2,954.6	3.88	-3.26	
6,795.0	1.00	205.70	5,979.9	-2,777.9	1,012.7	2,956.7	2.19	-1.15	
6,890.0	1.10	53.60	6,074.9	-2,778.1	1,013.1	2,957.0	2.15	0.11	
6,986.0	0.50	89.90	6,170.9	-2,777.5	1,014.3	2,956.9	0.79	-0.62	
7,081.0	0.20	335.00	6,265.9	-2,777.4	1,014.6	2,956.8	0.64	-0.32	
7,172.0	0.30	54.20	6,356.9	-2,777.1	1,014.7	2,956.6	0.36	0.11	
7,268.0	0.10	32.30	6,452.9	-2,776.9	1,015.0	2,956.5	0.22	-0.21	
7,364.0	0.20	21.60	6,548.9	-2,776.7	1,015.1	2,956.3	0.11	0.10	
7,460.0	0.20	237.60	6,644.9	-2,776.6	1,015.0	2,956.2	0.40	0.00	
7,556.0	0.10	204.00	6,740.9	-2,776.8	1,014.8	2,956.3	0.13	-0.10	
7,651.0	0.20	201.70	6,835.9	-2,777.0	1,014.8	2,956.5	0.11	0.11	
7,746.0	0.20	225.80	6,930.9	-2,777.3	1,014.6	2,956.7	0.09	0.00	
7,842.0	0.50	220.10	7,026.9	-2,777.7	1,014.2	2,957.0	0.31	0.31	
7,937.0	0.50	230.00	7,121.9	-2,778.3	1,013.6	2,957.3	0.09	0.00	
8,032.0	0.80	231.30	7,216.9	-2,779.0	1,012.8	2,957.7	0.32	0.32	
8,128.0	0.70	54.00	7,312.9	-2,779.0	1,012.7	2,957.8	1.56	-0.10	
8,224.0	0.30	120.50	7,408.9	-2,778.8	1,013.4	2,957.8	0.67	-0.42	
8,319.0	0.40	180.20	7,503.9	-2,779.3	1,013.6	2,958.3	0.38	0.11	
8,415.0	0.70	213.10	7,599.9	-2,780.1	1,013.3	2,959.0	0.44	0.31	
8,510.0	0.90	205.80	7,694.9	-2,781.3	1,012.7	2,959.8	0.24	0.21	
8,606.0	0.60	138.90	7,790.9	-2,782.3	1,012.7	2,960.8	0.90	-0.31	
8,701.0	0.40	130.60	7,885.9	-2,782.9	1,013.2	2,961.6	0.22	-0.21	
8,796.0	0.70	170.20	7,980.9	-2,783.7	1,013.6	2,962.4	0.49	0.32	
8,891.0	0.40	88.30	8,075.9	-2,784.3	1,014.0	2,963.1	0.80	-0.32	

Survey Report

Company: EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference: Well NP EF15A-28 C28 595
Project: North Piceance	TVD Reference: KBE @ 6197.0ft (Original Well Elev)
Site: C28 595 (S28-T5S-R95W)	MD Reference: KBE @ 6197.0ft (Original Well Elev)
Well: NP EF15A-28 C28 595	North Reference: True
Wellbore: DD	Survey Calculation Method: Minimum Curvature
Design: DD	Database: EDM 5000.1 US Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
8,987.0	0.50	139.30	8,171.9	-2,784.6	1,014.6	2,963.6	0.41	0.10	
9,081.0	0.70	116.40	8,265.9	-2,785.1	1,015.4	2,964.4	0.33	0.21	
9,177.0	1.00	287.80	8,361.9	-2,785.1	1,015.1	2,964.3	1.77	0.31	
9,272.0	0.80	280.50	8,456.8	-2,784.8	1,013.7	2,963.5	0.24	-0.21	
9,366.0	0.80	255.50	8,550.8	-2,784.8	1,012.4	2,963.1	0.37	0.00	
9,461.0	1.10	261.50	8,645.8	-2,785.1	1,010.9	2,962.9	0.33	0.32	
9,556.0	0.70	359.30	8,740.8	-2,784.7	1,010.0	2,962.1	1.45	-0.42	
9,652.0	0.50	351.30	8,836.8	-2,783.7	1,009.9	2,961.2	0.23	-0.21	
9,747.0	0.40	346.90	8,931.8	-2,782.9	1,009.8	2,960.4	0.11	-0.11	
9,842.0	0.50	316.80	9,026.8	-2,782.3	1,009.4	2,959.7	0.27	0.11	
9,937.0	0.70	270.20	9,121.8	-2,782.0	1,008.5	2,959.1	0.54	0.21	
10,032.0	0.70	257.10	9,216.8	-2,782.1	1,007.4	2,958.9	0.17	0.00	
10,127.0	0.70	226.70	9,311.8	-2,782.7	1,006.4	2,959.0	0.39	0.00	
10,223.0	0.80	262.50	9,407.8	-2,783.1	1,005.3	2,959.1	0.49	0.10	
10,317.0	0.70	265.90	9,501.8	-2,783.3	1,004.1	2,958.8	0.12	-0.11	
10,412.0	0.60	241.30	9,596.8	-2,783.5	1,003.1	2,958.8	0.31	-0.11	Last Cathedral Survey @ 10,412' MD
10,467.0	0.60	241.30	9,651.8	-2,783.8	1,002.6	2,958.8	0.00	0.00	Projection to Bit @ 10,467'

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
C28 595 EF15A-28 TGT - hit/miss target - Shape	0.00	0.00	5,947.0	-2,776.7	1,014.3	1,646,682.08	2,279,389.06	39° 34' 51.89 N	108° 3' 25.15 W
- actual wellpath misses target center by 1.6ft at 6762.1ft MD (5947.0 TVD, -2777.3 N, 1012.8 E)									
- Point									
C28 595 EF15A-28 BHL - actual wellpath misses target center by 7.5ft at 10322.3ft MD (9507.1 TVD, -2783.3 N, 1004.0 E)	0.00	0.00	9,507.0	-2,786.7	997.3	1,646,672.61	2,279,371.78	39° 34' 51.79 N	108° 3' 25.37 W
- Rectangle (sides W30.0 H50.0 D0.0)									

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,681.0	1,571.8	-447.2	162.9	Last Cathedral svy @ 1681'	
10,412.0	9,596.8	-2,783.5	1,003.1	Last Cathedral Survey @ 10,412' MD	
10,467.0	9,651.8	-2,783.8	1,002.6	Projection to Bit @ 10,467'	

Checked By: _____ Approved By: _____ Date: _____