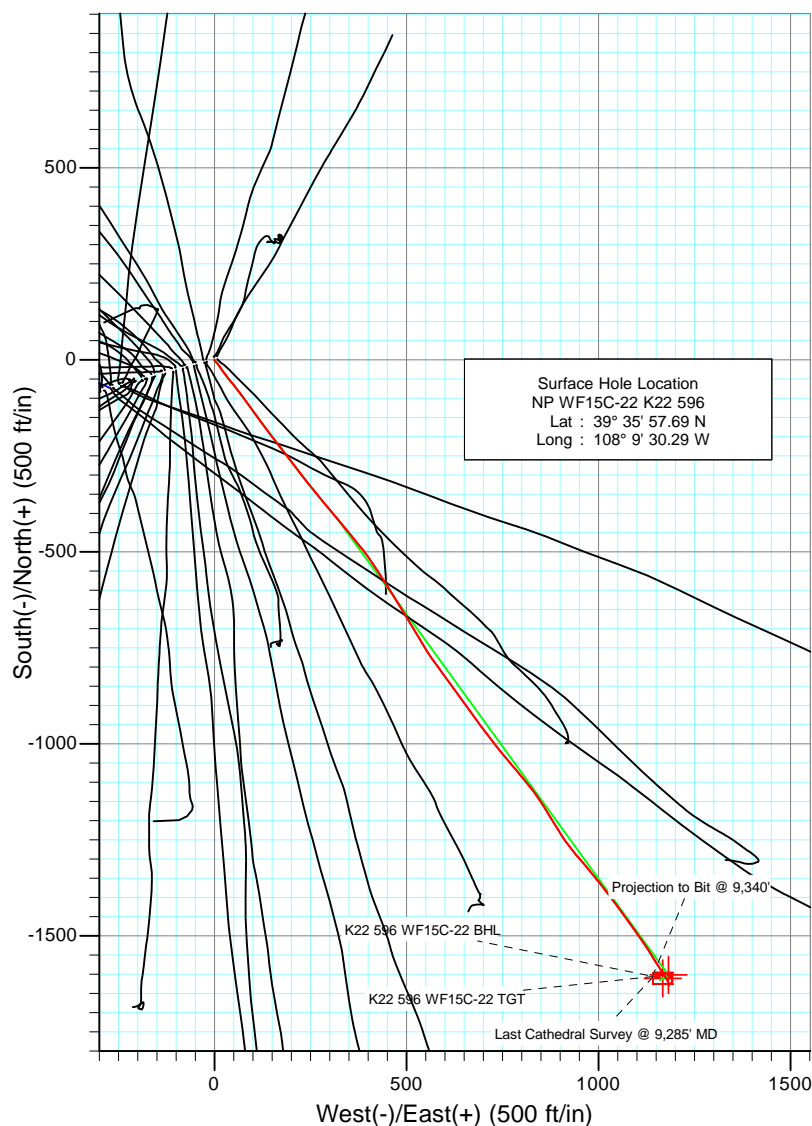
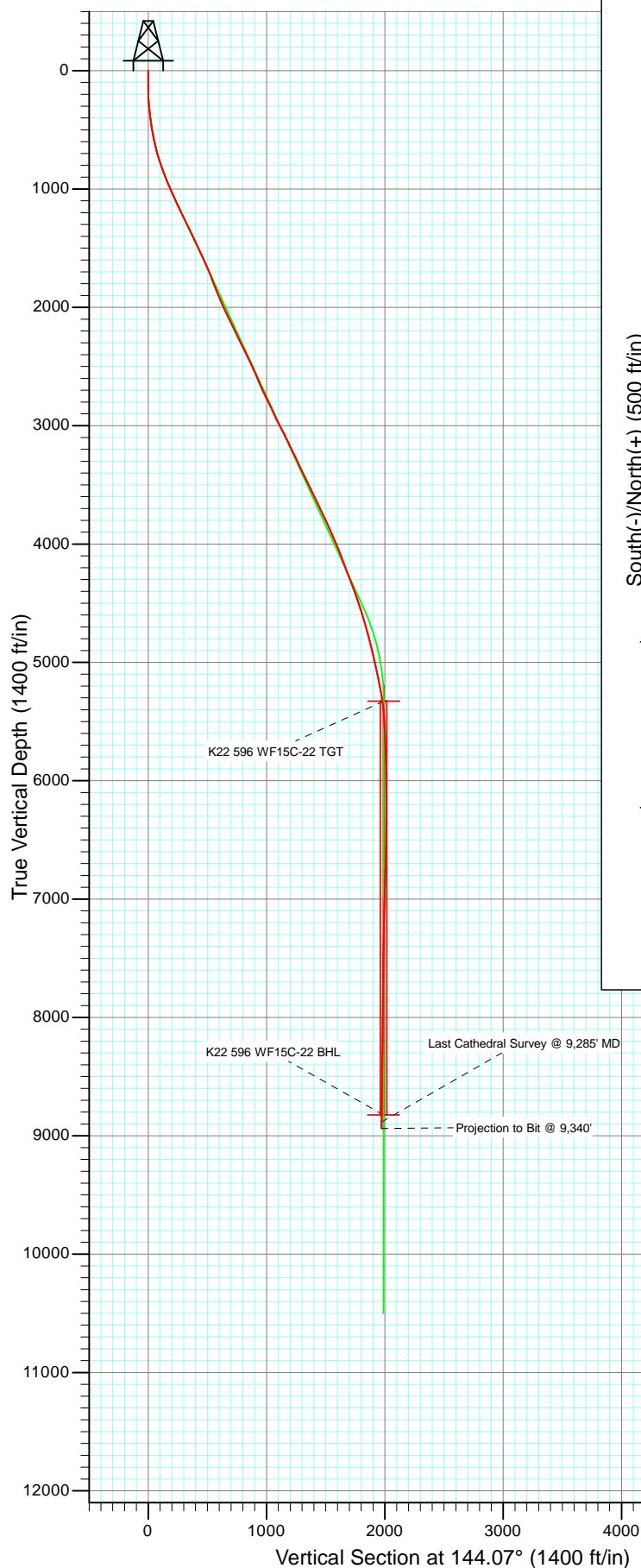




Project: North Piceance  
 Site: K22 596 Pad (S22-T5S-R96W)  
 Well: NP WF15C-22 K22 596  
 Wellbore: DD  
 Design: FINAL



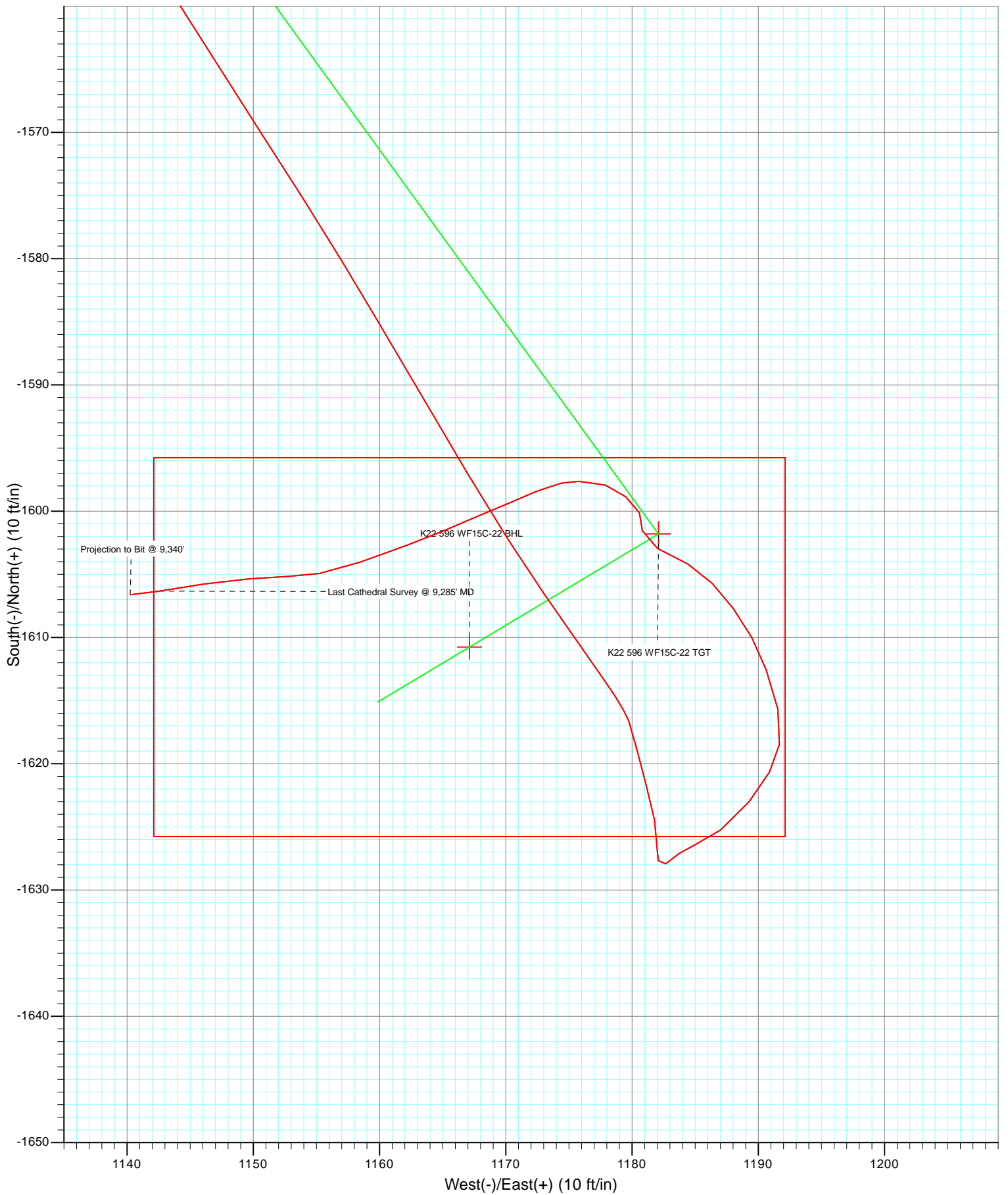
Azimuths to True North  
 Magnetic North: 10.53°

Magnetic Field  
 Strength: 52348.5snT  
 Dip Angle: 65.81°  
 Date: 10/12/2010  
 Model: IGRF2010

DD NP WF15C-22 K22 596 105349, 105444; LR						
WF15C-22 K22 596 @ 6549.0ft (Patterson 303) North American Datum 1983 Well NP WF15C-22 K22 596, True North						
Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
Target	K22 596 WF15C-22 BHL	144.07	Slot	0.0	0.0	0.0
Name	TVDD	+N/-S	+E/-W	Latitude	Longitude	
K22 596 WF15C-22 BHL	8823.0	-1601.8	1182.1	39° 35' 41.86 N	108° 9' 15.19 W	
		-1610.8	1167.1	39° 35' 41.77 N	108° 9' 15.38 W	



Project: North Piceance  
Site: K22 596 Pad (S22-T5S-R96W)  
Well: NP WF15C-22 K22 596  
Wellbore: DD  
Design: FINAL



# Cathedral Energy

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP WF15C-22 K22 596
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WF15C-22 K22 596 @ 6549.0ft (Patterson 303)
<b>Site:</b>	K22 596 Pad (S22-T5S-R96W)	<b>MD Reference:</b>	WF15C-22 K22 596 @ 6549.0ft (Patterson 303)
<b>Well:</b>	NP WF15C-22 K22 596	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB

<b>Project</b>	North Piceance		
<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		K22 596 Pad (S22-T5S-R96W)			
Site Position:		Northing:	1,654,096.85 ft	Latitude:	39° 35' 57.02 N
From:	Lat/Long	Easting:	2,250,762.90 ft	Longitude:	108° 9' 33.39 W
Position Uncertainty:	0.0 ft	Slot Radius:	0.000 in	Grid Convergence:	-1.68 °

Well	NP WF15C-22 K22 596					
Well Position	+N/-S	0.0 ft	Northing:	1,654,157.57 ft	Latitude:	39° 35' 57.69 N
	+E/-W	0.0 ft	Easting:	2,251,007.44 ft	Longitude:	108° 9' 30.29 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,527.0 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>
	IGRF2010	10/12/2010	10.53	65.81	52,349

<b>Design</b>	DD				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	144.07	

<b>Survey Program</b>	<b>Date</b>	10/27/2010			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
164.0	9,340.0	Survey #1 (DD)	MWD	Geolink MWD	

<b>Survey</b>									
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Formations / Comments</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
164.0	0.50	197.20	164.0	-0.7	-0.2	0.4	0.30	0.30	
193.0	0.80	160.60	193.0	-1.0	-0.2	0.7	1.72	1.03	
224.0	1.50	159.30	224.0	-1.6	0.0	1.3	2.26	2.26	
254.0	3.20	140.80	254.0	-2.6	0.7	2.5	6.13	5.67	
284.0	5.00	133.90	283.9	-4.2	2.2	4.6	6.21	6.00	
314.0	6.60	138.20	313.7	-6.3	4.3	7.6	5.52	5.33	
344.0	7.10	135.60	343.5	-9.0	6.7	11.2	1.96	1.67	
374.0	7.60	138.80	373.3	-11.8	9.3	15.0	2.15	1.67	
405.0	7.50	147.40	404.0	-15.0	11.8	19.1	3.66	-0.32	
435.0	8.20	146.80	433.7	-18.5	14.0	23.1	2.35	2.33	
465.0	8.70	144.70	463.4	-22.1	16.5	27.6	1.96	1.67	
496.0	8.70	147.00	494.0	-26.0	19.1	32.2	1.12	0.00	

# Cathedral Energy

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP WF15C-22 K22 596
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WF15C-22 K22 596 @ 6549.0ft (Patterson 303)
<b>Site:</b>	K22 596 Pad (S22-T5S-R96W)	<b>MD Reference:</b>	WF15C-22 K22 596 @ 6549.0ft (Patterson 303)
<b>Well:</b>	NP WF15C-22 K22 596	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	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
545.0	9.90	145.30	542.4	-32.5	23.5	40.2	2.51	2.45	
590.0	12.00	141.20	586.6	-39.4	28.6	48.7	4.97	4.67	
636.0	13.60	141.20	631.4	-47.3	35.0	58.9	3.48	3.48	
682.0	14.50	141.00	676.1	-56.0	42.0	70.0	1.96	1.96	
728.0	16.00	140.20	720.4	-65.4	49.7	82.1	3.29	3.26	
773.0	17.50	143.10	763.5	-75.5	57.8	95.1	3.81	3.33	
819.0	19.50	143.00	807.1	-87.2	66.5	109.6	4.35	4.35	
865.0	21.10	142.30	850.3	-99.9	76.2	125.6	3.52	3.48	
911.0	21.90	144.50	893.1	-113.4	86.3	142.5	2.47	1.74	
956.0	23.00	145.30	934.7	-127.5	96.1	159.6	2.54	2.44	
1,048.0	24.10	143.60	1,019.0	-157.4	117.5	196.4	1.41	1.20	
1,139.0	24.60	142.40	1,101.9	-187.3	140.1	233.9	0.77	0.55	
1,231.0	25.40	141.80	1,185.3	-218.0	164.0	272.8	0.91	0.87	
1,322.0	25.50	142.60	1,267.5	-248.9	188.0	311.8	0.39	0.11	
1,414.0	25.20	143.40	1,350.6	-280.4	211.7	351.2	0.49	-0.33	
1,505.0	25.70	141.30	1,432.8	-311.3	235.6	390.3	1.13	0.55	
1,597.0	25.60	141.70	1,515.7	-342.5	260.3	430.1	0.22	-0.11	
1,688.0	25.00	140.00	1,598.0	-372.6	284.9	468.9	1.04	-0.66	
1,790.0	23.20	138.70	1,691.1	-404.3	312.0	510.4	1.84	-1.76	
1,882.0	21.80	141.10	1,776.1	-431.2	334.7	545.5	1.82	-1.52	
1,974.0	21.10	142.00	1,861.7	-457.5	355.6	579.1	0.84	-0.76	
2,065.0	23.60	139.60	1,945.9	-484.3	377.5	613.7	2.92	2.75	
2,157.0	23.80	144.30	2,030.1	-513.4	400.3	650.6	2.06	0.22	
2,248.0	26.10	145.40	2,112.6	-544.8	422.4	689.0	2.58	2.53	
2,340.0	27.70	150.20	2,194.7	-580.0	444.5	730.5	2.93	1.74	
2,431.0	26.40	148.50	2,275.7	-615.6	465.6	771.7	1.66	-1.43	
2,523.0	24.70	147.60	2,358.7	-649.3	486.6	811.3	1.90	-1.85	
2,614.0	26.60	147.60	2,440.7	-682.5	507.7	850.6	2.09	2.09	
2,706.0	24.60	149.80	2,523.7	-716.5	528.3	890.2	2.41	-2.17	
2,797.0	22.40	149.40	2,607.2	-747.8	546.7	926.3	2.42	-2.42	
2,888.0	24.50	145.00	2,690.6	-778.2	566.3	962.4	3.00	2.31	
2,980.0	26.70	143.70	2,773.6	-810.5	589.5	1,002.2	2.47	2.39	
3,071.0	24.70	143.20	2,855.6	-842.2	613.0	1,041.6	2.21	-2.20	
3,162.0	25.60	145.20	2,938.0	-873.5	635.6	1,080.3	1.36	0.99	
3,254.0	28.40	143.80	3,019.9	-907.5	659.9	1,122.1	3.12	3.04	
3,346.0	26.50	143.90	3,101.6	-941.8	684.9	1,164.5	2.07	-2.07	
3,437.0	24.70	142.50	3,183.6	-973.2	708.5	1,203.8	2.09	-1.98	
3,528.0	26.50	140.90	3,265.7	-1,004.1	732.8	1,243.1	2.12	1.98	
3,620.0	24.90	141.30	3,348.6	-1,035.1	757.9	1,282.9	1.75	-1.74	
3,711.0	27.10	140.10	3,430.4	-1,066.0	783.2	1,322.7	2.49	2.42	
3,803.0	25.50	139.30	3,512.9	-1,097.1	809.5	1,363.4	1.78	-1.74	
3,894.0	25.20	144.10	3,595.1	-1,127.6	833.7	1,402.3	2.28	-0.33	
3,986.0	26.00	147.60	3,678.1	-1,160.5	856.0	1,442.0	1.86	0.87	
4,077.0	24.60	149.40	3,760.4	-1,193.7	876.3	1,480.8	1.76	-1.54	
4,169.0	24.30	148.20	3,844.1	-1,226.2	896.0	1,518.7	0.63	-0.33	
4,260.0	25.50	143.90	3,926.7	-1,258.0	917.4	1,557.0	2.39	1.32	
4,352.0	22.00	140.20	4,010.9	-1,287.2	940.1	1,594.0	4.13	-3.80	
4,443.0	21.20	138.50	4,095.5	-1,312.7	961.9	1,627.4	1.12	-0.88	
4,535.0	20.30	140.90	4,181.5	-1,337.5	983.0	1,659.9	1.35	-0.98	
4,626.0	20.40	141.80	4,266.8	-1,362.2	1,002.8	1,691.5	0.36	0.11	
4,717.0	21.70	142.30	4,351.7	-1,388.0	1,022.9	1,724.1	1.44	1.43	
4,809.0	20.00	144.00	4,437.7	-1,414.2	1,042.5	1,756.9	1.96	-1.85	
4,901.0	18.10	143.50	4,524.7	-1,438.4	1,060.3	1,786.9	2.07	-2.07	

# Cathedral Energy

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP WF15C-22 K22 596
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WF15C-22 K22 596 @ 6549.0ft (Patterson 303)
<b>Site:</b>	K22 596 Pad (S22-T5S-R96W)	<b>MD Reference:</b>	WF15C-22 K22 596 @ 6549.0ft (Patterson 303)
<b>Well:</b>	NP WF15C-22 K22 596	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	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
4,992.0	17.10	144.50	4,611.4	-1,460.6	1,076.5	1,814.4	1.15	-1.10	
5,084.0	15.20	144.40	4,699.8	-1,481.5	1,091.3	1,840.0	2.07	-2.07	
5,175.0	14.30	145.40	4,787.8	-1,500.4	1,104.7	1,863.2	1.03	-0.99	
5,266.0	13.60	145.10	4,876.1	-1,518.4	1,117.2	1,885.1	0.77	-0.77	
5,358.0	13.50	147.10	4,965.5	-1,536.3	1,129.2	1,906.6	0.52	-0.11	
5,449.0	12.00	148.10	5,054.3	-1,553.3	1,140.0	1,926.7	1.67	-1.65	
5,541.0	12.50	147.00	5,144.2	-1,569.8	1,150.4	1,946.2	0.60	0.54	
5,633.0	9.80	149.70	5,234.5	-1,584.9	1,159.8	1,963.9	2.99	-2.93	
5,724.0	8.10	149.20	5,324.3	-1,597.1	1,167.0	1,978.0	1.87	-1.87	
5,815.0	6.20	145.30	5,414.6	-1,606.6	1,173.1	1,989.3	2.15	-2.09	
5,907.0	3.70	144.80	5,506.3	-1,613.1	1,177.6	1,997.2	2.72	-2.72	
5,999.0	1.40	158.50	5,598.2	-1,616.6	1,179.7	2,001.3	2.57	-2.50	
6,090.0	1.60	168.90	5,689.2	-1,618.9	1,180.4	2,003.5	0.37	0.22	
6,181.0	1.90	162.80	5,780.1	-1,621.6	1,181.1	2,006.1	0.39	0.33	
6,273.0	1.80	170.20	5,872.1	-1,624.4	1,181.8	2,008.8	0.28	-0.11	
6,364.0	1.50	180.10	5,963.0	-1,627.0	1,182.0	2,011.1	0.45	-0.33	
6,456.0	0.90	63.40	6,055.0	-1,627.9	1,182.7	2,012.2	2.25	-0.65	
6,547.0	0.80	40.40	6,146.0	-1,627.1	1,183.7	2,012.1	0.39	-0.11	
6,638.0	1.10	76.30	6,237.0	-1,626.4	1,185.0	2,012.3	0.72	0.33	
6,730.0	1.90	50.20	6,329.0	-1,625.2	1,187.0	2,012.5	1.12	0.87	
6,822.0	2.10	40.80	6,420.9	-1,623.0	1,189.3	2,012.1	0.42	0.22	
6,913.0	1.50	26.00	6,511.9	-1,620.7	1,190.9	2,011.1	0.83	-0.66	
7,005.0	1.40	12.80	6,603.8	-1,618.5	1,191.7	2,009.8	0.38	-0.11	
7,096.0	2.20	347.90	6,694.8	-1,615.7	1,191.6	2,007.5	1.21	0.88	
7,188.0	1.90	338.50	6,786.7	-1,612.5	1,190.6	2,004.4	0.49	-0.33	
7,279.0	1.60	333.10	6,877.7	-1,610.0	1,189.5	2,001.7	0.38	-0.33	
7,371.0	1.80	322.50	6,969.6	-1,607.7	1,188.0	1,999.0	0.40	0.22	
7,462.0	1.50	316.80	7,060.6	-1,605.7	1,186.4	1,996.3	0.38	-0.33	
7,554.0	1.60	300.40	7,152.6	-1,604.2	1,184.4	1,994.0	0.49	0.11	
7,645.0	1.80	294.70	7,243.5	-1,602.9	1,182.0	1,991.6	0.29	0.22	
7,737.0	1.00	8.10	7,335.5	-1,601.5	1,180.8	1,989.7	1.95	-0.87	
7,828.0	0.90	331.00	7,426.5	-1,600.1	1,180.6	1,988.4	0.67	-0.11	
7,920.0	1.20	311.00	7,518.5	-1,598.9	1,179.5	1,986.8	0.51	0.33	
8,011.0	1.20	289.00	7,609.5	-1,597.9	1,177.9	1,985.1	0.50	0.00	
8,103.0	1.50	269.20	7,701.4	-1,597.6	1,175.8	1,983.6	0.60	0.33	
8,194.0	0.30	236.10	7,792.4	-1,597.8	1,174.4	1,982.9	1.38	-1.32	
8,285.0	0.60	261.30	7,883.4	-1,598.0	1,173.7	1,982.7	0.39	0.33	
8,377.0	1.10	245.70	7,975.4	-1,598.4	1,172.4	1,982.3	0.59	0.54	
8,468.0	1.80	247.50	8,066.4	-1,599.3	1,170.3	1,981.8	0.77	0.77	
8,560.0	1.80	247.50	8,158.3	-1,600.4	1,167.7	1,981.1	0.00	0.00	
8,651.0	1.80	245.50	8,249.3	-1,601.6	1,165.0	1,980.5	0.07	0.00	
8,743.0	2.10	251.50	8,341.2	-1,602.7	1,162.1	1,979.7	0.39	0.33	
8,834.0	2.80	249.00	8,432.2	-1,604.0	1,158.5	1,978.6	0.78	0.77	
8,926.0	1.40	265.60	8,524.1	-1,604.9	1,155.2	1,977.5	1.64	-1.52	
9,017.0	1.80	263.90	8,615.1	-1,605.2	1,152.7	1,976.2	0.44	0.44	
9,109.0	2.10	268.40	8,707.0	-1,605.4	1,149.6	1,974.5	0.37	0.33	
9,200.0	2.40	259.00	8,797.9	-1,605.8	1,146.1	1,972.8	0.52	0.33	
9,285.0	2.40	263.00	8,882.9	-1,606.3	1,142.5	1,971.1	0.20	0.00	Last Cathedral Survey @ 9,285' MD Projection to Bit @ 9,340'
9,340.0	2.40	263.00	8,937.8	-1,606.6	1,140.3	1,970.0	0.00	0.00	

# Cathedral Energy

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP WF15C-22 K22 596
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	WF15C-22 K22 596 @ 6549.0ft (Patterson 303)
<b>Site:</b>	K22 596 Pad (S22-T5S-R96W)	<b>MD Reference:</b>	WF15C-22 K22 596 @ 6549.0ft (Patterson 303)
<b>Well:</b>	NP WF15C-22 K22 596	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
K22 596 WF15C-22 BHL	0.00	0.00	8,823.0	-1,610.8	1,167.1	1,652,513.36	2,252,126.95	39° 35' 41.77 N	108° 9' 15.38 W
- survey misses target center by 22.6ft at 9224.2ft MD (8822.1 TVD, -1606.0 N, 1145.1 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									
K22 596 WF15C-22 TG <sup>1</sup>	0.00	0.00	5,327.0	-1,601.8	1,182.1	1,652,521.87	2,252,142.16	39° 35' 41.86 N	108° 9' 15.19 W
- survey misses target center by 15.5ft at 5728.1ft MD (5328.4 TVD, -1597.6 N, 1167.3 E)									
- Point									

Survey Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
9,285.0	8,882.9	-1,606.3	1,142.5	Last Cathedral Survey @ 9,285' MD
9,340.0	8,937.8	-1,606.6	1,140.3	Projection to Bit @ 9,340'

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_