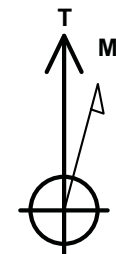
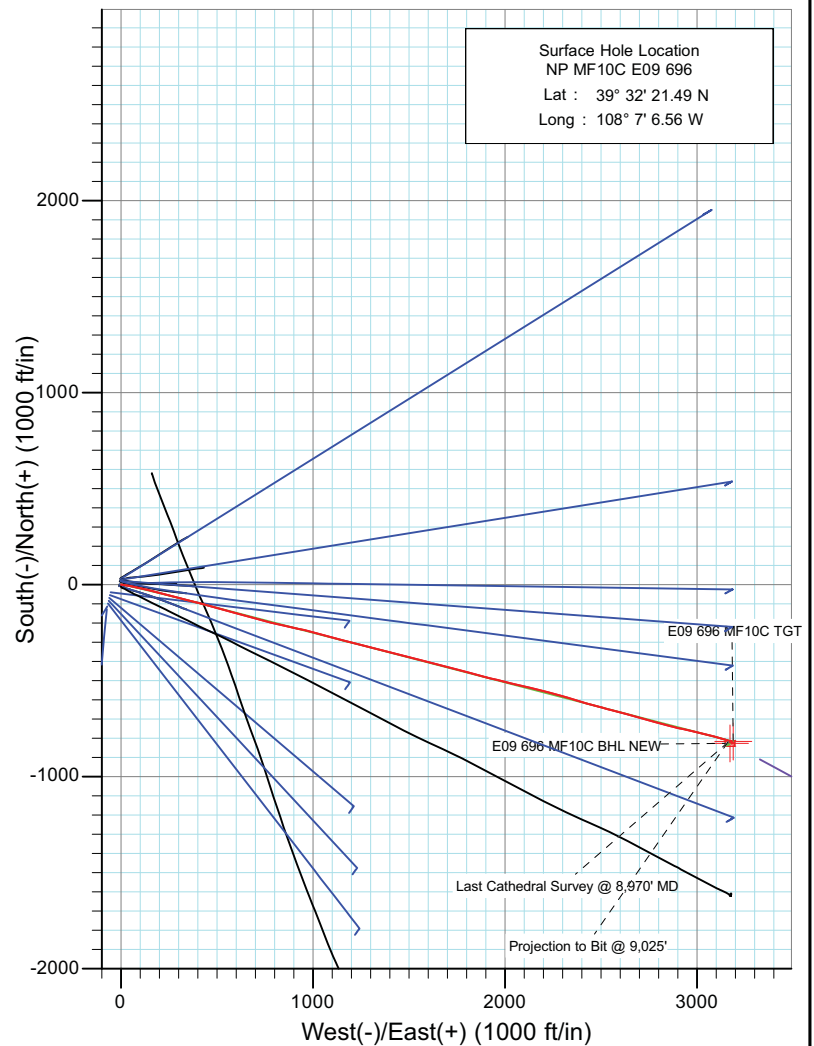
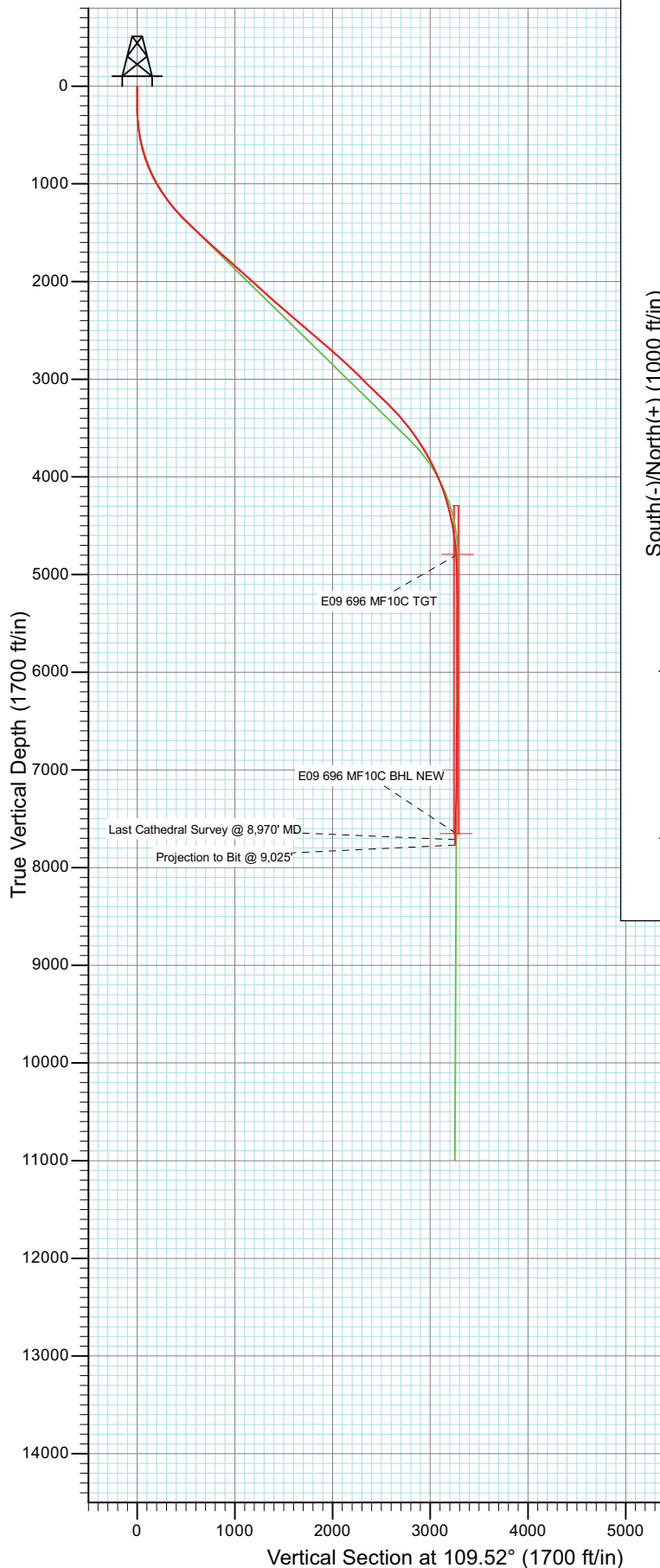




Project: North Piceance  
 Site: E09 696 (SWNW S9-T6S-R96W)  
 Well: NP MF10C E09 696  
 Wellbore: DD  
 Design: FINAL

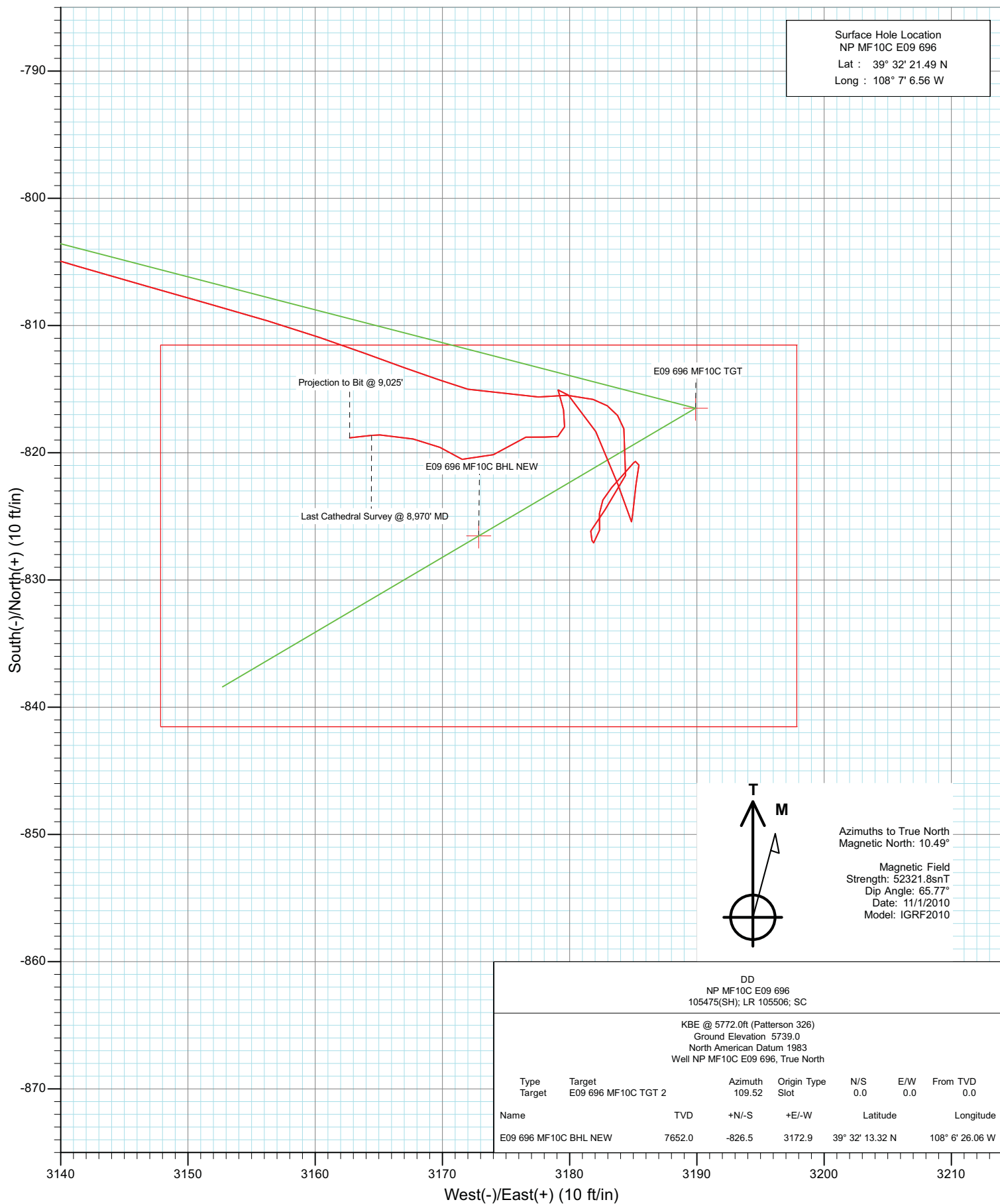


Azimuths to True North  
 Magnetic North: 10.49°  
 Magnetic Field  
 Strength: 52321.8nT  
 Dip Angle: 65.77°  
 Date: 11/1/2010  
 Model: IGRF2010

DD NP MF10C E09 696 105475(SH); LR 105506; SC						
KBE @ 5772.0ft (Patterson 326) Ground Elevation 5739.0 North American Datum 1983 Well NP MF10C E09 696, True North						
Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
Target	E09 696 MF10C TGT 2	109.52	Slot	0.0	0.0	0.0
Name	TV	+N/-S	+E/-W	Latitude	Longitude	
E09 696 MF10C BHL NEW	7652.0	-826.5	3172.9	39° 32' 13.32 N	108° 6' 26.06 W	



Project: North Piceance  
 Site: E09 696 (SWNW S9-T6S-R96W)  
 Well: NP MF10C E09 696  
 Wellbore: DD  
 Design: FINAL



# Cathedral Energy

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP MF10C E09 696
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	KBE @ 5772.0ft (Patterson 326)
<b>Site:</b>	E09 696 (SWNW S9-T6S-R96W)	<b>MD Reference:</b>	KBE @ 5772.0ft (Patterson 326)
<b>Well:</b>	NP MF10C E09 696	<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	E09 696 (SWNW S9-T6S-R96W)				
Site Position:		Northing:	1,632,140.57 ft	Latitude:	39° 32' 23.23 N
From:	Lat/Long	Easting:	2,261,634.68 ft	Longitude:	108° 7' 6.47 W
Position Uncertainty:	0.0 ft	Slot Radius:	0.000 in	Grid Convergence:	-1.65 °

Well	NP MF10C E09 696					
Well Position	+N/-S	0.0 ft	Northing:	1,631,964.81 ft	Latitude:	39° 32' 21.49 N
	+E/-W	0.0 ft	Easting:	2,261,622.60 ft	Longitude:	108° 7' 6.56 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,739.0 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	11/1/2010	10.49	65.77	52,322

<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</b>	<b>+E/-W</b>	<b>Direction</b>	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	109.52	

<b>Survey Program</b>	<b>Date</b>	11/23/2010			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
234.0	9,025.0	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		
234.0	0.50	65.60	234.0	0.4	0.9	0.7	0.21	0.21		
266.0	1.80	87.80	266.0	0.5	1.6	1.3	4.22	4.06		
297.0	2.40	88.40	297.0	0.5	2.7	2.4	1.94	1.94		
326.0	3.30	88.10	325.9	0.6	4.1	3.7	3.10	3.10		
357.0	4.60	95.30	356.9	0.5	6.3	5.7	4.48	4.19		
388.0	5.70	98.90	387.7	0.1	9.0	8.5	3.70	3.55		
419.0	6.90	98.50	418.5	-0.4	12.4	11.8	3.87	3.87		
449.0	8.20	97.00	448.3	-0.9	16.3	15.7	4.38	4.33		
480.0	9.00	98.30	478.9	-1.5	20.9	20.2	2.66	2.58		
511.0	9.90	100.20	509.5	-2.3	25.9	25.2	3.07	2.90		
542.0	11.30	99.30	540.0	-3.3	31.5	30.8	4.55	4.52		
574.0	12.00	101.40	571.3	-4.5	37.9	37.2	2.56	2.19		

# Cathedral Energy

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP MF10C E09 696
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	KBE @ 5772.0ft (Patterson 326)
<b>Site:</b>	E09 696 (SWNW S9-T6S-R96W)	<b>MD Reference:</b>	KBE @ 5772.0ft (Patterson 326)
<b>Well:</b>	NP MF10C E09 696	<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
606.0	13.10	101.50	602.6	-5.8	44.7	44.1	3.44	3.44	
637.0	14.20	103.80	632.7	-7.5	51.8	51.3	3.96	3.55	
669.0	15.70	103.80	663.6	-9.4	59.9	59.6	4.69	4.69	
700.0	17.00	103.40	693.3	-11.5	68.3	68.2	4.21	4.19	
763.0	19.60	102.70	753.2	-15.9	87.6	87.9	4.14	4.13	
827.0	21.50	102.30	813.1	-20.8	109.5	110.2	2.98	2.97	
890.0	24.20	102.20	871.1	-26.0	133.4	134.5	4.29	4.29	
953.0	27.00	103.90	927.9	-32.1	159.9	161.5	4.59	4.44	
1,016.0	29.40	103.80	983.5	-39.3	188.9	191.1	3.81	3.81	
1,079.0	31.30	104.40	1,037.8	-47.0	219.7	222.8	3.05	3.02	
1,142.0	34.00	103.50	1,090.9	-55.2	252.7	256.6	4.35	4.29	
1,205.0	35.70	105.10	1,142.6	-64.1	287.6	292.5	3.06	2.70	
1,269.0	37.80	104.70	1,193.8	-74.0	324.6	330.6	3.30	3.28	
1,332.0	40.40	105.50	1,242.7	-84.3	362.9	370.3	4.20	4.13	
1,395.0	43.00	103.90	1,289.8	-94.9	403.5	412.0	4.46	4.13	
1,458.0	44.10	106.10	1,335.4	-106.2	445.4	455.3	2.97	1.75	
1,500.0	44.50	105.90	1,365.5	-114.3	473.6	484.6	1.01	0.95	
1,560.0	45.40	103.80	1,408.0	-125.1	514.6	526.8	2.89	1.50	
1,655.0	46.80	105.90	1,473.8	-142.7	580.7	595.0	2.17	1.47	
1,750.0	47.30	105.30	1,538.6	-161.4	647.7	664.4	0.70	0.53	
1,845.0	47.70	105.60	1,602.7	-180.0	715.2	734.2	0.48	0.42	
1,939.0	48.60	103.70	1,665.5	-197.7	782.9	804.0	1.78	0.96	
2,034.0	48.80	102.50	1,728.2	-213.9	852.5	874.9	0.97	0.21	
2,129.0	48.50	102.20	1,790.9	-229.2	922.1	945.7	0.39	-0.32	
2,224.0	48.20	103.80	1,854.1	-245.1	991.3	1,016.2	1.30	-0.32	
2,319.0	48.60	105.00	1,917.1	-262.8	1,060.1	1,087.0	1.03	0.42	
2,413.0	48.40	105.80	1,979.4	-281.5	1,128.0	1,157.2	0.67	-0.21	
2,508.0	47.90	105.00	2,042.8	-300.3	1,196.2	1,227.8	0.82	-0.53	
2,602.0	47.70	103.70	2,105.9	-317.5	1,263.6	1,297.1	1.05	-0.21	
2,697.0	48.60	104.00	2,169.3	-334.5	1,332.3	1,367.5	0.98	0.95	
2,791.0	48.60	105.10	2,231.5	-352.2	1,400.6	1,437.8	0.88	0.00	
2,886.0	49.90	104.20	2,293.5	-370.4	1,470.2	1,509.5	1.55	1.37	
2,981.0	49.70	103.70	2,354.8	-387.9	1,540.6	1,581.7	0.45	-0.21	
3,076.0	49.20	103.60	2,416.6	-404.9	1,610.8	1,653.5	0.53	-0.53	
3,170.0	49.90	104.90	2,477.6	-422.5	1,680.1	1,724.7	1.29	0.74	
3,265.0	49.00	104.80	2,539.3	-441.0	1,749.9	1,796.7	0.95	-0.95	
3,360.0	49.40	105.10	2,601.4	-459.6	1,819.4	1,868.4	0.48	0.42	
3,455.0	49.70	104.90	2,663.0	-478.3	1,889.2	1,940.4	0.35	0.32	
3,550.0	48.90	103.20	2,725.0	-495.8	1,959.1	2,012.1	1.60	-0.84	
3,644.0	48.10	103.70	2,787.3	-512.2	2,027.5	2,082.1	0.94	-0.85	
3,739.0	47.20	102.80	2,851.3	-528.2	2,095.9	2,151.9	1.18	-0.95	
3,834.0	46.40	104.30	2,916.3	-544.5	2,163.2	2,220.8	1.43	-0.84	
3,929.0	45.10	104.40	2,982.6	-561.3	2,229.1	2,288.5	1.37	-1.37	
4,023.0	45.00	105.30	3,049.0	-578.4	2,293.4	2,354.8	0.69	-0.11	
4,118.0	45.70	107.30	3,115.8	-597.4	2,358.3	2,422.3	1.67	0.74	
4,213.0	46.50	106.20	3,181.6	-617.1	2,423.8	2,490.7	1.19	0.84	
4,308.0	46.20	105.20	3,247.2	-635.7	2,490.0	2,559.3	0.82	-0.32	
4,403.0	43.50	104.20	3,314.6	-652.7	2,554.8	2,626.0	2.94	-2.84	
4,497.0	41.40	105.60	3,383.9	-669.0	2,616.1	2,689.3	2.45	-2.23	
4,592.0	39.10	106.40	3,456.4	-685.9	2,675.1	2,750.5	2.48	-2.42	
4,687.0	36.70	104.70	3,531.4	-701.6	2,731.3	2,808.7	2.75	-2.53	
4,782.0	33.80	105.10	3,609.0	-715.7	2,784.3	2,863.4	3.06	-3.05	
4,876.0	31.60	106.10	3,688.1	-729.3	2,833.2	2,914.0	2.41	-2.34	

# Cathedral Energy

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP MF10C E09 696
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	KBE @ 5772.0ft (Patterson 326)
<b>Site:</b>	E09 696 (SWNW S9-T6S-R96W)	<b>MD Reference:</b>	KBE @ 5772.0ft (Patterson 326)
<b>Well:</b>	NP MF10C E09 696	<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
4,971.0	30.30	103.20	3,769.5	-741.7	2,880.4	2,962.7	2.08	-1.37	
5,066.0	27.90	101.90	3,852.5	-751.7	2,925.5	3,008.6	2.61	-2.53	
5,161.0	25.70	102.50	3,937.3	-760.8	2,967.4	3,051.0	2.33	-2.32	
5,255.0	22.40	103.10	4,023.2	-769.2	3,004.8	3,089.1	3.52	-3.51	
5,350.0	19.70	103.90	4,111.8	-777.2	3,037.9	3,123.0	2.86	-2.84	
5,445.0	17.00	105.20	4,202.0	-784.7	3,066.9	3,152.8	2.87	-2.84	
5,540.0	16.00	104.30	4,293.1	-791.6	3,093.0	3,179.7	1.09	-1.05	
5,634.0	13.30	106.40	4,384.0	-797.8	3,115.9	3,203.4	2.93	-2.87	
5,729.0	11.60	106.60	4,476.8	-803.6	3,135.5	3,223.8	1.79	-1.79	
5,824.0	8.90	105.60	4,570.2	-808.3	3,151.8	3,240.7	2.85	-2.84	
5,919.0	6.50	110.40	4,664.4	-812.2	3,163.9	3,253.4	2.61	-2.53	
6,013.0	4.00	107.10	4,758.0	-815.0	3,172.0	3,262.0	2.68	-2.66	
6,108.0	2.90	81.40	4,852.8	-815.6	3,177.6	3,267.4	1.97	-1.16	
6,203.0	2.40	106.10	4,947.7	-815.8	3,181.8	3,271.5	1.30	-0.53	
6,298.0	2.20	163.80	5,042.6	-818.1	3,184.3	3,274.6	2.34	-0.21	
6,392.0	2.40	190.90	5,136.6	-821.8	3,184.4	3,275.9	1.16	0.21	
6,487.0	1.70	239.40	5,231.5	-824.4	3,182.8	3,275.3	1.90	-0.74	
6,582.0	1.20	176.10	5,326.5	-826.2	3,181.7	3,274.8	1.66	-0.53	
6,677.0	0.20	66.90	5,421.5	-827.1	3,181.9	3,275.3	1.35	-1.05	
6,771.0	1.20	18.90	5,515.5	-826.1	3,182.4	3,275.5	1.15	1.06	
6,866.0	0.60	318.40	5,610.5	-824.8	3,182.3	3,275.0	1.10	-0.63	
6,961.0	1.10	41.00	5,705.4	-823.7	3,182.6	3,274.9	1.25	0.53	
7,055.0	0.40	19.20	5,799.4	-822.7	3,183.3	3,275.2	0.79	-0.74	
7,150.0	1.20	49.40	5,894.4	-821.8	3,184.2	3,275.7	0.92	0.84	
7,245.0	0.40	17.00	5,989.4	-820.8	3,185.0	3,276.2	0.94	-0.84	
7,339.0	0.70	146.60	6,083.4	-821.0	3,185.4	3,276.7	1.07	0.32	
7,432.0	1.50	206.10	6,176.4	-822.5	3,185.2	3,277.0	1.39	0.86	
7,527.0	1.50	166.70	6,271.4	-824.9	3,185.0	3,277.5	1.06	0.00	
7,622.0	0.90	329.50	6,366.4	-825.4	3,184.9	3,277.6	2.50	-0.63	
7,716.0	2.90	343.20	6,460.3	-822.5	3,183.8	3,275.6	2.17	2.13	
7,811.0	2.60	330.90	6,555.2	-818.3	3,182.1	3,272.6	0.69	-0.32	
7,906.0	1.80	311.30	6,650.1	-815.5	3,179.9	3,269.6	1.14	-0.84	
8,000.0	0.80	151.60	6,744.1	-815.1	3,179.1	3,268.7	2.73	-1.06	
8,095.0	1.20	173.20	6,839.1	-816.6	3,179.5	3,269.6	0.57	0.42	
8,190.0	0.40	187.20	6,934.1	-818.0	3,179.6	3,270.2	0.86	-0.84	
8,285.0	0.80	227.70	7,029.1	-818.7	3,179.1	3,269.9	0.59	0.42	
8,380.0	0.80	308.50	7,124.1	-818.8	3,178.1	3,269.0	1.09	0.00	
8,474.0	1.30	246.70	7,218.1	-818.8	3,176.6	3,267.6	1.23	0.53	
8,569.0	2.20	238.80	7,313.0	-820.1	3,174.0	3,265.6	0.98	0.95	
8,664.0	1.30	302.60	7,408.0	-820.5	3,171.6	3,263.4	2.11	-0.95	
8,759.0	1.10	293.10	7,503.0	-819.6	3,169.8	3,261.5	0.30	-0.21	
8,853.0	1.60	283.60	7,596.9	-818.9	3,167.7	3,259.2	0.58	0.53	
8,948.0	1.60	270.00	7,691.9	-818.6	3,165.1	3,256.7	0.40	0.00	
8,970.0	1.80	263.80	7,713.9	-818.6	3,164.4	3,256.1	1.23	0.91	Last Cathedral Survey @ 8,970' MD
9,025.0	1.80	263.80	7,768.9	-818.8	3,162.7	3,254.5	0.00	0.00	Projection to Bit @ 9,025'

# Cathedral Energy

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well NP MF10C E09 696
<b>Project:</b>	North Piceance	<b>TVD Reference:</b>	KBE @ 5772.0ft (Patterson 326)
<b>Site:</b>	E09 696 (SWNW S9-T6S-R96W)	<b>MD Reference:</b>	KBE @ 5772.0ft (Patterson 326)
<b>Well:</b>	NP MF10C E09 696	<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									
E09 696 MF10C BHL NI	0.00	0.00	7,652.0	-826.5	3,172.9	1,631,047.18	2,264,770.31	39° 32' 13.32 N	108° 6' 26.06 W
- survey misses target center by 10.3ft at 8907.9ft MD (7651.8 TVD, -818.7 N, 3166.2 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									
E09 696 MF10C TGT	0.00	0.00	4,792.0	-816.5	3,189.9	1,631,056.73	2,264,787.64	39° 32' 13.42 N	108° 6' 25.84 W
- survey misses target center by 15.7ft at 6048.0ft MD (4792.9 TVD, -815.5 N, 3174.2 E)									
- Point									

Survey Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
8,970.0	7,713.9	-818.6	3,164.4	Last Cathedral Survey @ 8,970' MD
9,025.0	7,768.9	-818.8	3,162.7	Projection to Bit @ 9,025'

Checked By: _____	Approved By: _____	Date: _____
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