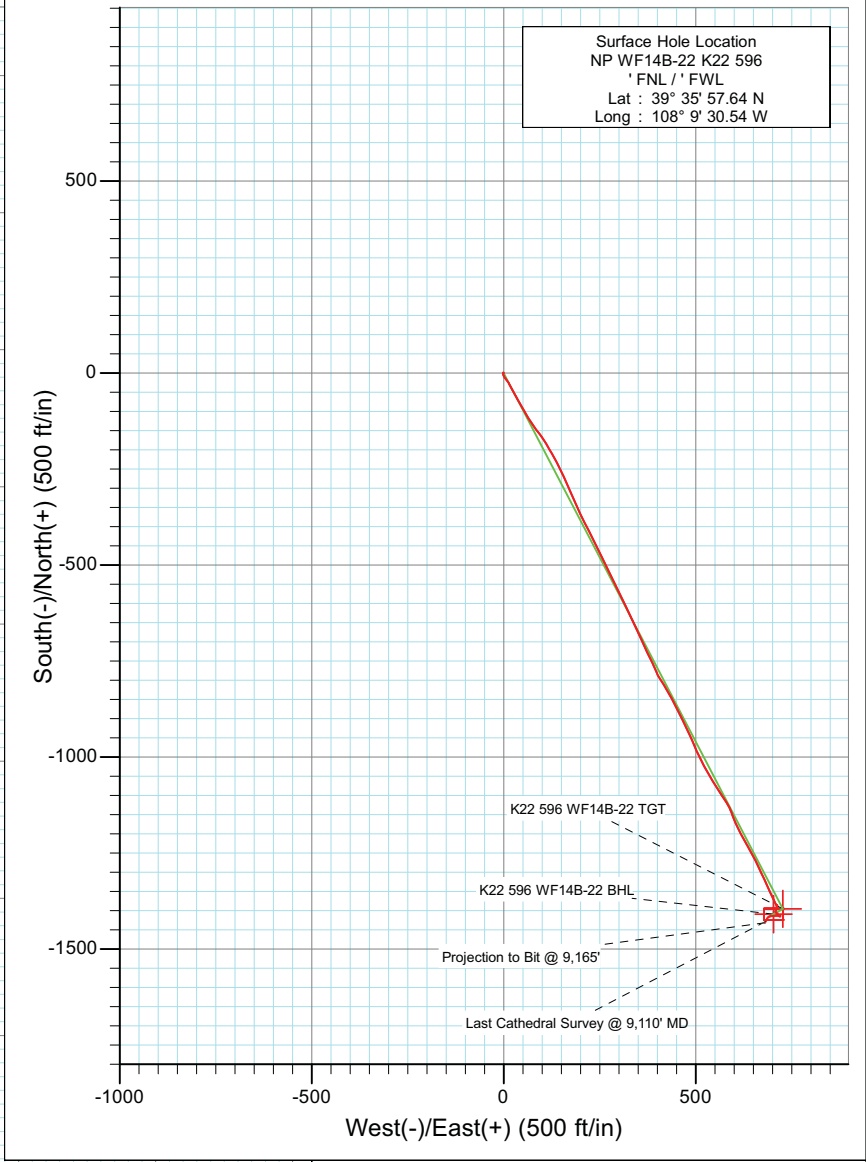
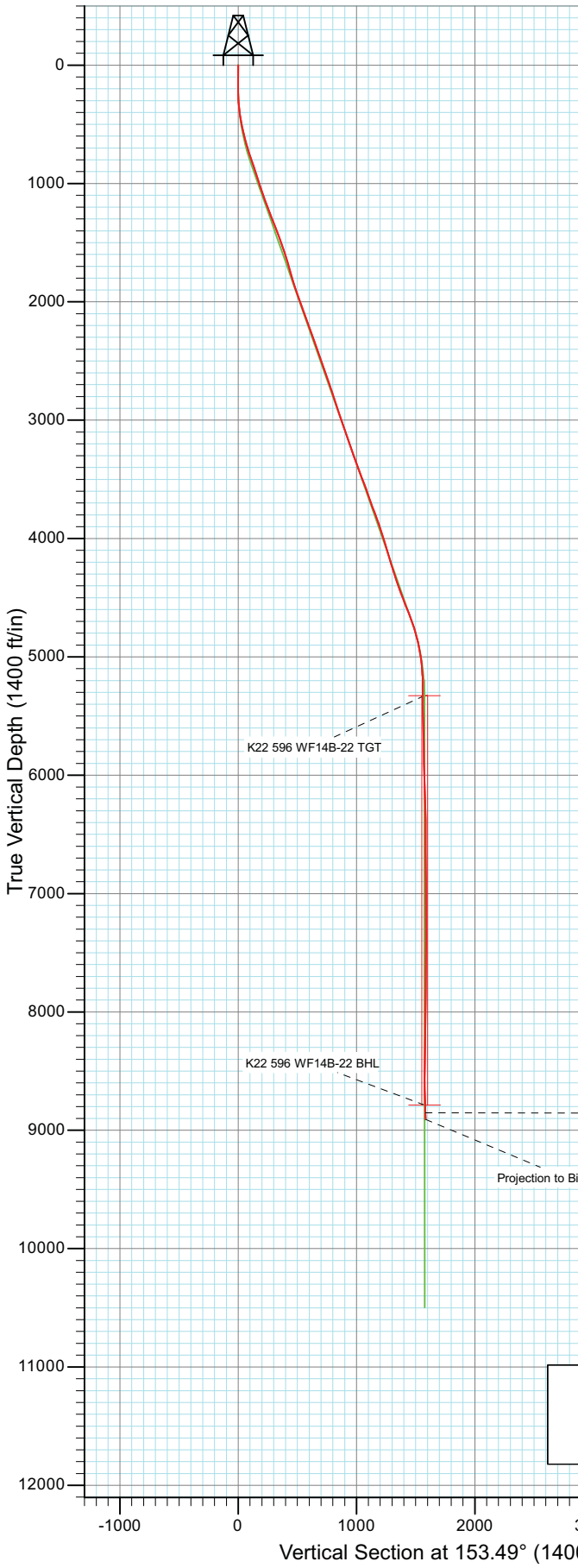


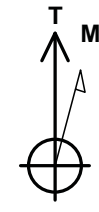


Project: North Piceance
 Site: K22 596 Pad (S22-T5S-R96W)
 Well: NP WF14B-22 K22 596
 Wellbore: DD
 Design: FINAL



Surface Hole Location
 NP WF14B-22 K22 596
 ' FNL / ' FWL
 Lat : 39° 35' 57.64 N
 Long : 108° 9' 30.54 W

Bottom Hole Location
 NP WF14B-22 K22 596
 ' FSL / ' FWL
 Lat : 39 35 43.71
 Long. : 108 9 21.56



Azimuths to True North
 Magnetic North: 10.53°
 Magnetic Field
 Strength: 52353.5snT
 Dip Angle: 65.81°
 Date: 9/24/2010
 Model: IGRF2010

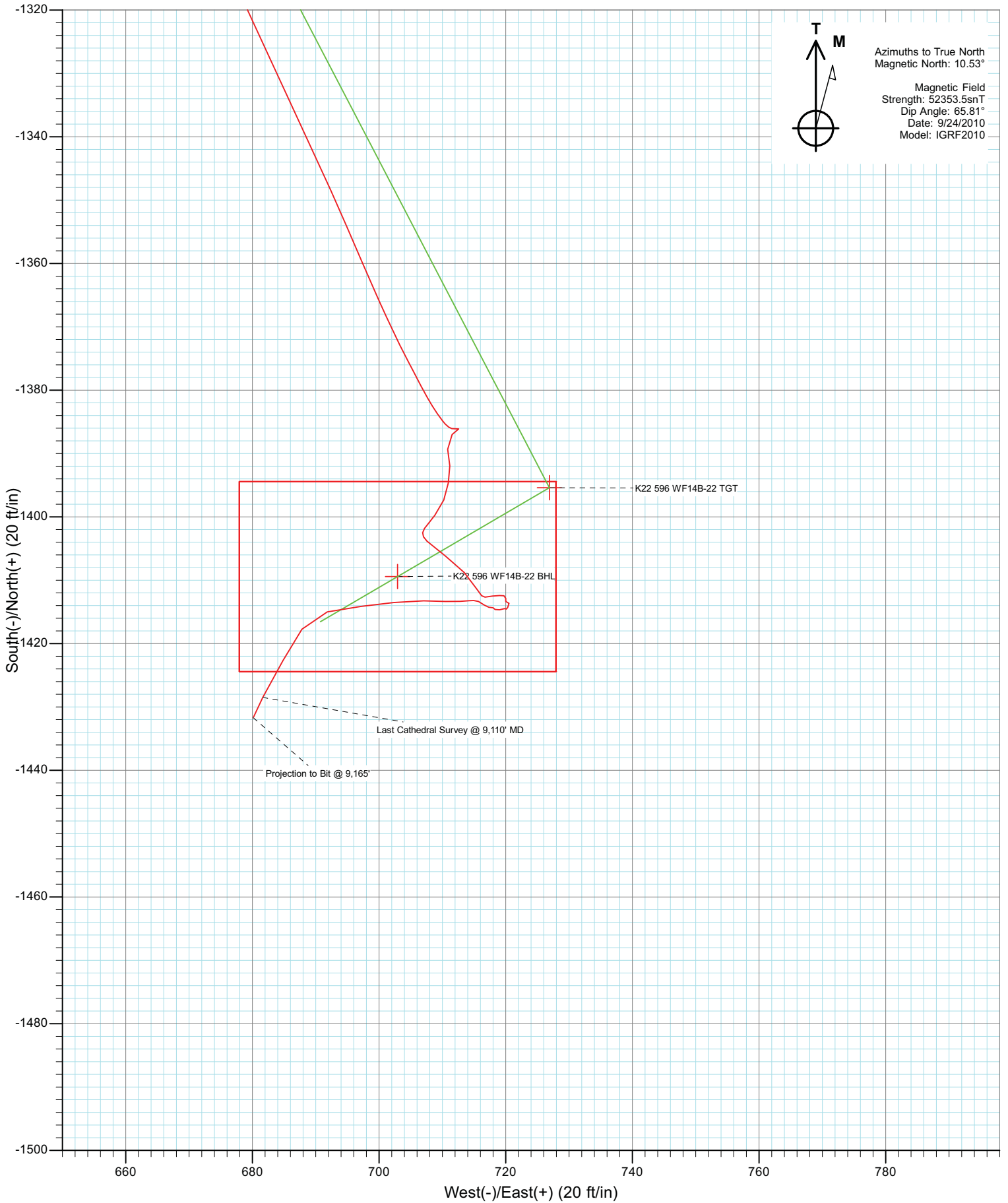
DESIGN DETAILS: DD

105338 (SH), 105412 (MH); LR
 WF14B-22 K22 596 @ 6546.0ft (Patterson 303)

Target	Azimuth	Origin	N/S	E/W	From	TVD
K22 596 WF14B-22 BHL	153.49	Slot	0.0	0.0	0.0	0.0



Project: North Piceance
Site: K22 596 Pad (S22-T5S-R96W)
Well: NP WF14B-22 K22 596
Wellbore: DD
Design: FINAL



Cathedral Energy

Survey Report

Company: EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference: Well NP WF14B-22 K22 596
Project: North Piceance	TVD Reference: WF14B-22 K22 596 @ 6546.0ft (Patterson 303)
Site: K22 596 Pad (S22-T5S-R96W)	MD Reference: WF14B-22 K22 596 @ 6546.0ft (Patterson 303)
Well: NP WF14B-22 K22 596	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 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 WF14B-22 K22 596					
Well Position	+N/-S 0.0 ft	Northing: 1,654,153.08 ft	Latitude: 39° 35' 57.64 N		
	+E/-W 0.0 ft	Easting: 2,250,987.73 ft	Longitude: 108° 9' 30.54 W		
Position Uncertainty	0.0 ft	Wellhead Elevation: ft	Ground Level: 6,524.0 ft		

Wellbore DD					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/24/2010	10.53	65.81	52,353

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	153.49	

Survey Program		Date 10/6/2010
From (ft)	To (ft)	Survey (Wellbore)
164.0	9,165.0	Survey #1 (DD)
		Tool Name MWD
		Description 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	
164.0	0.80	326.10	164.0	1.0	-0.6	-1.1	0.49	0.49	
193.0	0.50	227.60	193.0	1.0	-0.8	-1.3	3.46	-1.03	
224.0	1.50	219.60	224.0	0.6	-1.2	-1.1	3.25	3.23	
254.0	2.80	203.60	254.0	-0.3	-1.7	-0.5	4.73	4.33	
284.0	3.90	164.30	283.9	-2.0	-1.8	1.0	8.26	3.67	
314.0	4.10	166.60	313.8	-4.0	-1.2	3.0	0.85	0.67	
344.0	5.20	158.20	343.7	-6.3	-0.5	5.4	4.30	3.67	
375.0	6.50	149.20	374.6	-9.1	0.9	8.6	5.12	4.19	
405.0	7.90	145.20	404.3	-12.3	3.0	12.3	4.95	4.67	
435.0	9.20	143.90	434.0	-15.9	5.6	16.7	4.38	4.33	
466.0	10.80	141.70	464.5	-20.2	8.8	22.0	5.31	5.16	
496.0	11.00	149.40	494.0	-24.9	12.0	27.6	4.90	0.67	

Cathedral Energy

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP WF14B-22 K22 596
Project:	North Piceance	TVD Reference:	WF14B-22 K22 596 @ 6546.0ft (Patterson 303)
Site:	K22 596 Pad (S22-T5S-R96W)	MVD Reference:	WF14B-22 K22 596 @ 6546.0ft (Patterson 303)
Well:	NP WF14B-22 K22 596	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
545.0	12.60	151.40	542.0	-33.6	17.0	37.6	3.37	3.27	
591.0	13.60	151.80	586.8	-42.8	21.9	48.1	2.18	2.17	
636.0	14.90	148.90	630.4	-52.4	27.4	59.1	3.29	2.89	
682.0	15.80	150.40	674.7	-62.9	33.6	71.3	2.14	1.96	
728.0	17.50	153.80	718.8	-74.5	39.7	84.4	4.26	3.70	
774.0	19.20	150.90	762.5	-87.4	46.4	98.9	4.19	3.70	
865.0	18.70	147.90	848.5	-112.8	61.5	128.4	1.20	-0.55	
957.0	17.80	144.10	935.9	-136.7	77.6	156.9	1.62	-0.98	
1,048.0	18.30	144.00	1,022.4	-159.5	94.1	184.7	0.55	0.55	
1,139.0	20.10	148.50	1,108.4	-184.4	110.7	214.4	2.56	1.98	
1,231.0	20.90	152.40	1,194.6	-212.4	126.5	246.6	1.72	0.87	
1,322.0	20.90	151.70	1,279.6	-241.1	141.8	279.0	0.27	0.00	
1,414.0	21.20	154.30	1,365.4	-270.5	156.8	312.1	1.07	0.33	
1,506.0	20.50	156.80	1,451.4	-300.3	170.3	344.8	1.23	-0.76	
1,597.0	19.30	157.20	1,537.0	-328.8	182.4	375.7	1.33	-1.32	
1,688.0	17.30	154.90	1,623.4	-355.0	194.0	404.2	2.34	-2.20	
1,784.0	15.80	154.70	1,715.4	-379.7	205.6	431.6	1.56	-1.56	
1,875.0	16.30	151.40	1,802.8	-402.1	217.0	456.7	1.14	0.55	
1,967.0	18.20	153.30	1,890.7	-426.3	229.7	484.0	2.15	2.07	
2,058.0	20.70	154.10	1,976.5	-453.5	243.1	514.3	2.76	2.75	
2,150.0	18.90	154.80	2,063.1	-481.6	256.5	545.4	1.97	-1.96	
2,242.0	20.40	154.10	2,149.7	-509.5	269.9	576.4	1.65	1.63	
2,333.0	18.90	154.00	2,235.4	-537.0	283.3	607.0	1.65	-1.65	
2,425.0	21.30	153.70	2,321.8	-565.4	297.2	638.6	2.61	2.61	
2,516.0	19.20	154.10	2,407.2	-593.6	311.1	670.1	2.31	-2.31	
2,607.0	18.00	153.50	2,493.4	-619.7	323.9	699.1	1.34	-1.32	
2,699.0	20.40	155.30	2,580.3	-647.0	336.9	729.3	2.69	2.61	
2,790.0	19.50	155.50	2,665.8	-675.2	349.8	760.4	0.99	-0.99	
2,882.0	17.30	155.10	2,753.1	-701.6	362.0	789.4	2.40	-2.39	
2,973.0	18.80	154.70	2,839.6	-727.1	373.9	817.6	1.65	1.65	
3,064.0	19.50	155.20	2,925.6	-754.2	386.6	847.4	0.79	0.77	
3,156.0	17.10	155.70	3,012.9	-780.4	398.6	876.3	2.61	-2.61	
3,247.0	19.00	147.70	3,099.5	-805.2	412.0	904.4	3.43	2.09	
3,339.0	19.70	148.30	3,186.3	-831.0	428.2	934.8	0.79	0.76	
3,430.0	20.90	153.30	3,271.6	-858.6	443.5	966.3	2.32	1.32	
3,522.0	18.60	154.40	3,358.2	-886.5	457.2	997.3	2.53	-2.50	
3,613.0	20.40	154.00	3,444.0	-913.8	470.5	1,027.7	1.98	1.98	
3,705.0	21.60	155.00	3,529.9	-943.6	484.6	1,060.7	1.36	1.30	
3,796.0	19.50	157.50	3,615.1	-972.8	497.5	1,092.6	2.50	-2.31	
3,887.0	19.10	154.00	3,701.0	-1,000.2	509.9	1,122.6	1.34	-0.44	
3,979.0	20.80	150.60	3,787.4	-1,028.0	524.5	1,154.0	2.24	1.85	
4,071.0	18.90	150.10	3,874.0	-1,055.1	539.9	1,185.2	2.07	-2.07	
4,162.0	18.80	147.00	3,960.1	-1,080.2	555.3	1,214.5	1.11	-0.11	
4,254.0	17.80	146.60	4,047.4	-1,104.4	571.1	1,243.2	1.10	-1.09	
4,345.0	15.50	150.00	4,134.6	-1,126.5	584.8	1,269.1	2.74	-2.53	
4,437.0	16.30	161.30	4,223.1	-1,149.4	595.1	1,294.2	3.47	0.87	
4,528.0	18.60	156.10	4,309.9	-1,174.8	605.1	1,321.3	3.05	2.53	
4,619.0	21.00	150.80	4,395.6	-1,202.3	618.9	1,352.1	3.29	2.64	
4,711.0	19.40	151.00	4,481.9	-1,230.0	634.4	1,383.9	1.74	-1.74	
4,802.0	21.80	153.60	4,567.1	-1,258.4	649.2	1,415.9	2.82	2.64	
4,894.0	20.80	153.40	4,652.8	-1,288.3	664.1	1,449.3	1.09	-1.09	
4,985.0	19.40	155.50	4,738.2	-1,316.5	677.6	1,480.5	1.73	-1.54	
5,077.0	14.20	154.90	4,826.3	-1,340.6	688.8	1,507.1	5.66	-5.65	

Cathedral Energy

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP WF14B-22 K22 596
Project:	North Piceance	TVD Reference:	WF14B-22 K22 596 @ 6546.0ft (Patterson 303)
Site:	K22 596 Pad (S22-T5S-R96W)	MD Reference:	WF14B-22 K22 596 @ 6546.0ft (Patterson 303)
Well:	NP WF14B-22 K22 596	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
5,168.0	10.90	157.10	4,915.1	-1,358.7	696.9	1,526.9	3.66	-3.63	
5,260.0	8.50	153.70	5,005.8	-1,372.8	703.3	1,542.3	2.68	-2.61	
5,351.0	5.10	149.20	5,096.1	-1,382.3	708.3	1,553.1	3.78	-3.74	
5,443.0	1.40	103.90	5,188.0	-1,386.1	711.5	1,557.9	4.60	-4.02	
5,534.0	0.30	1.30	5,279.0	-1,386.1	712.6	1,558.4	1.64	-1.21	
5,626.0	1.90	222.30	5,370.9	-1,387.0	711.6	1,558.8	2.32	1.74	
5,717.0	1.60	165.70	5,461.9	-1,389.3	710.9	1,560.5	1.85	-0.33	
5,809.0	1.70	180.20	5,553.9	-1,391.9	711.2	1,563.0	0.47	0.11	
5,900.0	1.70	188.90	5,644.8	-1,394.6	711.0	1,565.3	0.28	0.00	
5,992.0	1.80	200.50	5,736.8	-1,397.3	710.2	1,567.4	0.40	0.11	
6,083.0	1.80	220.50	5,827.7	-1,399.8	708.8	1,569.0	0.69	0.00	
6,175.0	1.50	215.80	5,919.7	-1,401.8	707.2	1,570.1	0.36	-0.33	
6,266.0	1.90	133.00	6,010.7	-1,403.8	707.6	1,572.0	2.49	0.44	
6,358.0	2.80	126.00	6,102.6	-1,406.2	710.5	1,575.5	1.03	0.98	
6,449.0	2.20	138.00	6,193.5	-1,408.8	713.5	1,579.1	0.87	-0.66	
6,541.0	2.00	148.90	6,285.5	-1,411.5	715.5	1,582.4	0.48	-0.22	
6,632.0	0.60	69.30	6,376.4	-1,412.7	716.7	1,584.1	2.18	-1.54	
6,723.0	0.90	89.40	6,467.4	-1,412.5	717.9	1,584.4	0.43	0.33	
6,815.0	0.50	80.60	6,559.4	-1,412.4	719.0	1,584.9	0.45	-0.43	
6,907.0	0.40	107.60	6,651.4	-1,412.5	719.7	1,585.2	0.25	-0.11	
6,998.0	0.40	183.30	6,742.4	-1,412.9	720.0	1,585.7	0.54	0.00	
7,090.0	0.20	174.40	6,834.4	-1,413.3	720.0	1,586.1	0.22	-0.22	
7,181.0	0.30	88.30	6,925.4	-1,413.5	720.3	1,586.4	0.38	0.11	
7,273.0	0.20	172.30	7,017.4	-1,413.6	720.5	1,586.6	0.37	-0.11	
7,364.0	0.70	205.00	7,108.4	-1,414.3	720.3	1,587.1	0.60	0.55	
7,456.0	0.30	0.90	7,200.4	-1,414.6	720.1	1,587.3	1.07	-0.43	
7,547.0	0.30	238.30	7,291.4	-1,414.5	719.9	1,587.1	0.58	0.00	
7,639.0	0.80	263.10	7,383.4	-1,414.7	719.0	1,586.9	0.59	0.54	
7,730.0	0.20	327.70	7,474.4	-1,414.6	718.3	1,586.5	0.81	-0.66	
7,822.0	0.30	300.70	7,566.4	-1,414.4	718.0	1,586.1	0.17	0.11	
7,913.0	0.60	265.50	7,657.4	-1,414.3	717.3	1,585.8	0.43	0.33	
8,004.0	0.60	325.90	7,748.4	-1,413.9	716.6	1,585.1	0.66	0.00	
8,096.0	0.80	284.80	7,840.4	-1,413.3	715.7	1,584.2	0.57	0.22	
8,187.0	0.20	266.70	7,931.4	-1,413.2	714.9	1,583.7	0.67	-0.66	
8,279.0	0.70	267.70	8,023.4	-1,413.2	714.2	1,583.4	0.54	0.54	
8,370.0	1.10	264.70	8,114.4	-1,413.3	712.8	1,582.9	0.44	0.44	
8,462.0	1.80	272.40	8,206.3	-1,413.3	710.5	1,581.9	0.79	0.76	
8,553.0	2.50	271.10	8,297.3	-1,413.3	707.1	1,580.3	0.77	0.77	
8,645.0	3.40	263.70	8,389.1	-1,413.5	702.3	1,578.4	1.06	0.98	
8,736.0	3.20	262.70	8,480.0	-1,414.1	697.1	1,576.6	0.23	-0.22	
8,828.0	3.50	259.00	8,571.8	-1,415.0	691.8	1,575.0	0.40	0.33	
8,919.0	3.20	210.10	8,662.7	-1,417.7	687.8	1,575.7	3.06	-0.33	
9,011.0	4.00	212.10	8,754.5	-1,422.7	684.8	1,578.8	0.88	0.87	
9,110.0	3.70	205.00	8,853.3	-1,428.5	681.7	1,582.5	0.57	-0.30	Last Cathedral Survey @ 9,110' MD
9,165.0	3.70	205.00	8,908.2	-1,431.7	680.2	1,584.8	0.00	0.00	Projection to Bit @ 9,165'

Cathedral Energy

Survey Report

Company: EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference: Well NP WF14B-22 K22 596
Project: North Piceance	TVD Reference: WF14B-22 K22 596 @ 6546.0ft (Patterson 303)
Site: K22 596 Pad (S22-T5S-R96W)	MD Reference: WF14B-22 K22 596 @ 6546.0ft (Patterson 303)
Well: NP WF14B-22 K22 596	North Reference: True
Wellbore: DD	Survey Calculation Method: Minimum Curvature
Design: DD	Database: 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 WF14B-22 TG1	0.00	0.00	5,327.0	-1,395.4	726.9	1,652,737.02	2,251,673.49	39° 35' 43.85 N	108° 9' 21.25 W
- survey misses target center by 17.2ft at 5582.0ft MD (5326.9 TVD, -1386.2 N, 712.3 E)									
- Point									
K22 596 WF14B-22 BHL	0.00	0.00	8,787.0	-1,409.4	702.9	1,652,723.70	2,251,649.13	39° 35' 43.71 N	108° 9' 21.56 W
- survey misses target center by 24.5ft at 9042.0ft MD (8785.5 TVD, -1424.5 N, 683.7 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									

Survey Annotations					
	Measured	Vertical	Local Coordinates		Comment
	Depth	Depth	+N/-S	+E/-W	
	(ft)	(ft)	(ft)	(ft)	
	9,110.0	8,853.3	-1,428.5	681.7	Last Cathedral Survey @ 9,110' MD
	9,165.0	8,908.2	-1,431.7	680.2	Projection to Bit @ 9,165'

Checked By: _____ Approved By: _____ Date: _____