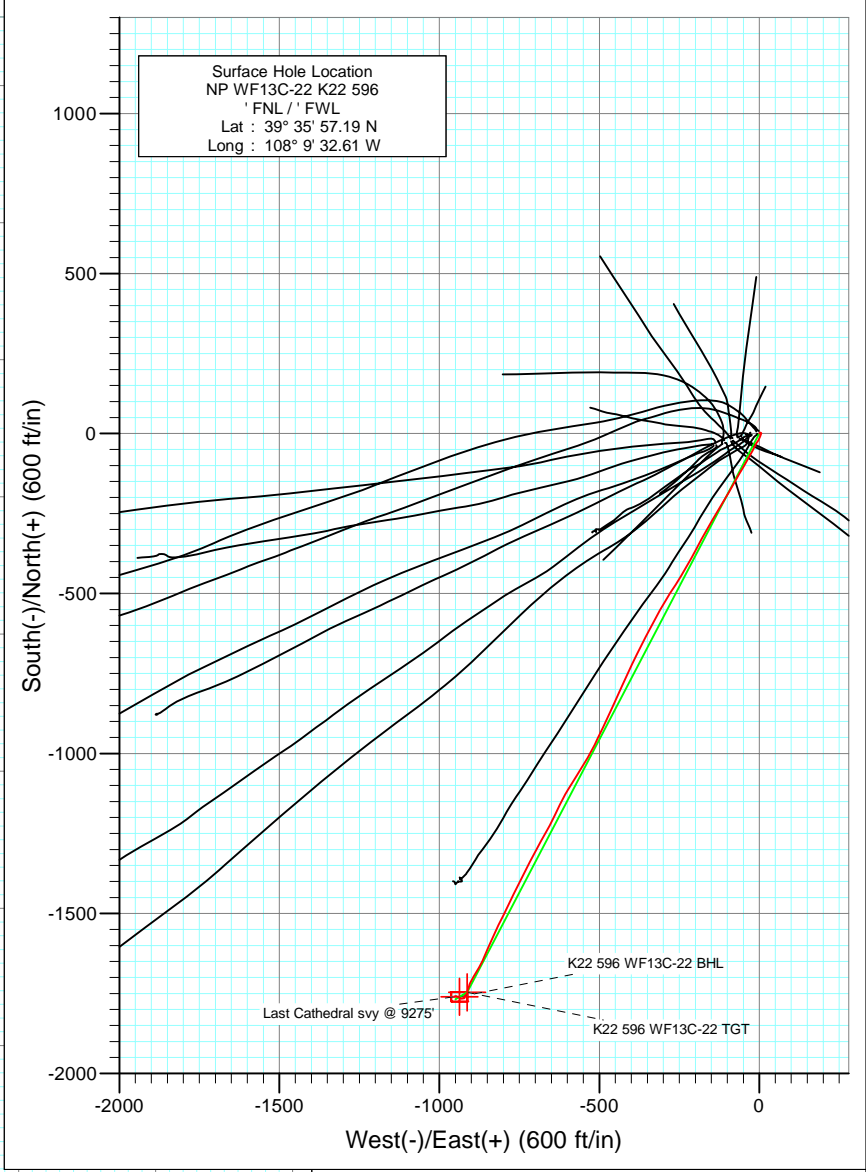
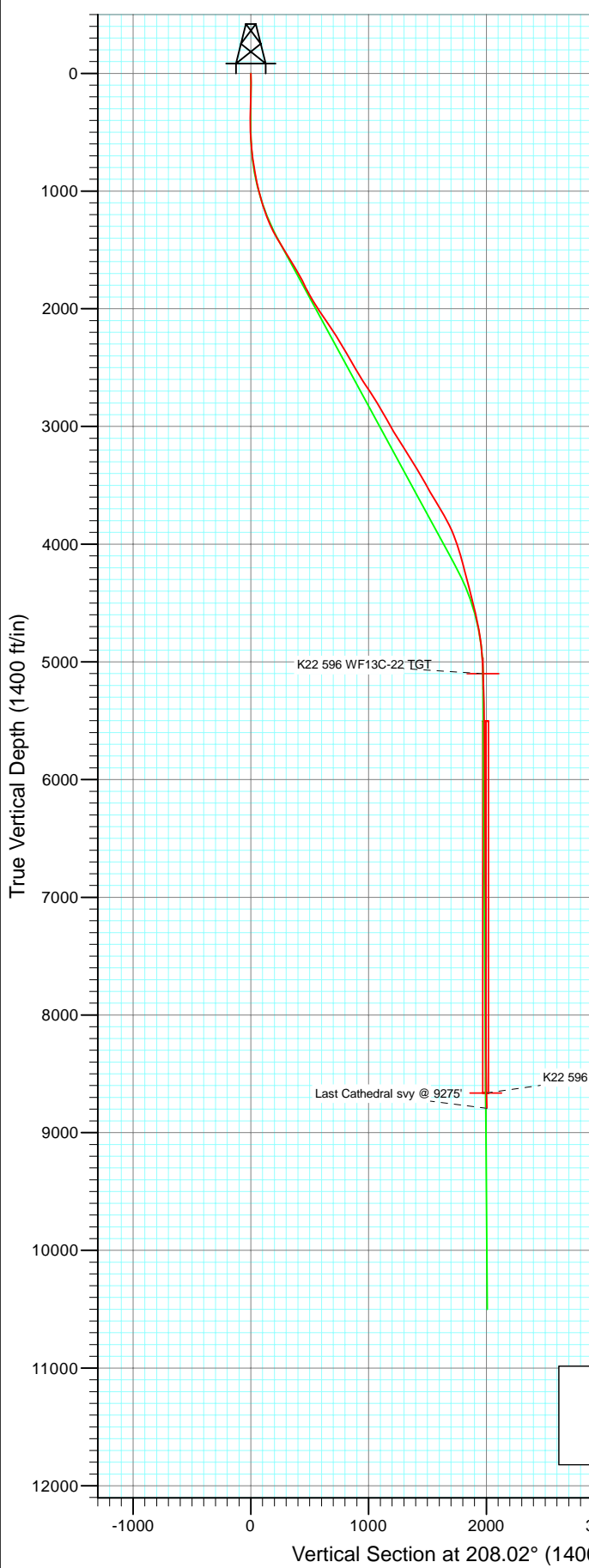
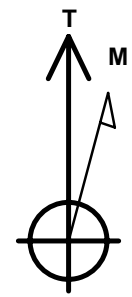




Project: North Piceance
 Site: K22 596 Pad (S22-T5S-R96W)
 Well: NP WF13C-22 K22 596
 Wellbore: DD
 Design: Final Survey



Bottom Hole Location
 NP WF13C-22 K22 596
 'FSL / ' FWL
 Lat : 39 35 39.79
 Long : 108 9 44.58



Azimuths to True North
 Magnetic North: 10.60°
 Magnetic Field
 Strength: 52408.6snT
 Dip Angle: 65.83°
 Date: 3/8/2010
 Model: IGRF2010

DESIGN DETAILS: DD

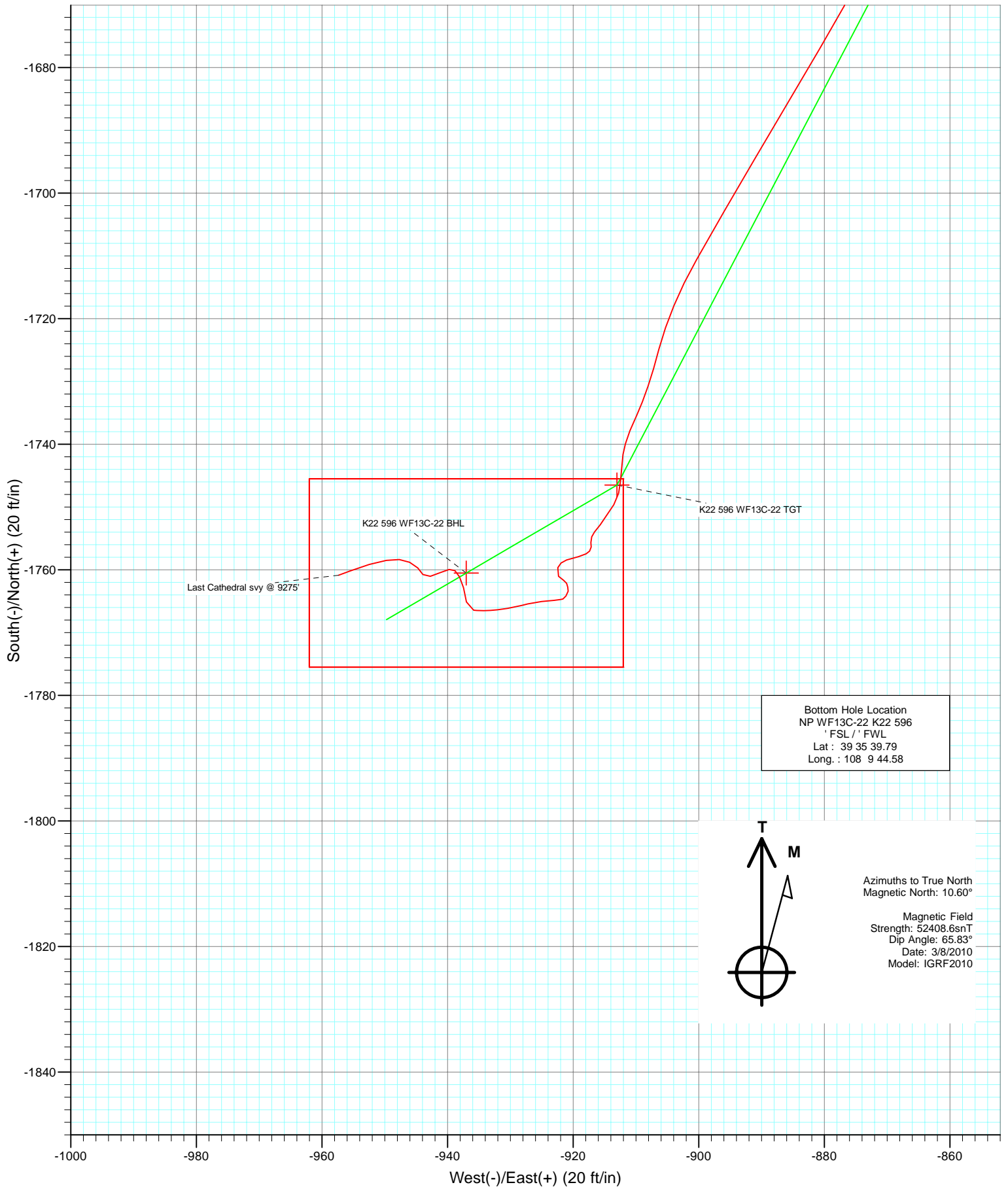
105043 (SH), 105120 (MH); LR
 WELL @ 6546.0ft (Patterson #303)

Target	Azimuth	Origin	N/S	E/W From TVD
K22 596 WF13C-22 BHL	208.02	Slot	0.0	0.0

Vertical Section at 208.02° (1400 ft/in)



Project: North Piceance
Site: K22 596 Pad (S22-T5S-R96W)
Well: NP WF13C-22 K22 596
Wellbore: DD
Design: DD



Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference: Well NP WF13C-22 K22 596
Project: North Piceance	TVD Reference: WELL @ 6546.0ft (Patterson #303)
Site: K22 596 Pad (S22-T5S-R96W)	MD Reference: WELL @ 6546.0ft (Patterson #303)
Well: NP WF13C-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 WF13C-22 K22 596					
Well Position	+N/-S 0.0 ft	Northing: 1,654,112.32 ft	Latitude: 39° 35' 57.19 N		
	+E/-W 0.0 ft	Easting: 2,250,824.44 ft	Longitude: 108° 9' 32.61 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	3/8/2010	10.60	65.83	52,409

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	208.02	

Survey Program		Date 4/3/2010
From (ft)	To (ft)	Survey (Wellbore)
266.0	1,650.0	Survey #1 (DD)
1,753.0	9,275.0	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	
266.0	1.10	30.30	266.0	2.2	1.3	-2.6	0.41	0.41	
296.0	1.30	64.30	296.0	2.6	1.7	-3.1	2.42	0.67	
327.0	2.00	99.20	327.0	2.7	2.6	-3.6	3.85	2.26	
358.0	2.30	102.40	357.9	2.4	3.7	-3.9	1.04	0.97	
388.0	2.10	111.30	387.9	2.1	4.8	-4.1	1.32	-0.67	
419.0	1.30	115.20	418.9	1.8	5.7	-4.2	2.61	-2.58	
450.0	0.90	125.50	449.9	1.5	6.2	-4.2	1.43	-1.29	
481.0	1.50	183.50	480.9	0.9	6.4	-3.8	4.12	1.94	
511.0	2.20	212.10	510.9	0.0	6.0	-2.9	3.79	2.33	
560.0	4.30	200.90	559.8	-2.5	4.9	-0.1	4.46	4.29	
606.0	4.80	194.50	605.7	-5.9	3.8	3.5	1.55	1.09	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP WF13C-22 K22 596
Project:	North Piceance	TD Reference:	WELL @ 6546.0ft (Patterson #303)
Site:	K22 596 Pad (S22-T5S-R96W)	MD Reference:	WELL @ 6546.0ft (Patterson #303)
Well:	NP WF13C-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
652.0	6.00	197.10	651.4	-10.1	2.6	7.7	2.66	2.61	
698.0	7.20	205.70	697.1	-15.0	0.6	12.9	3.37	2.61	
744.0	7.90	209.90	742.7	-20.3	-2.2	19.0	1.94	1.52	
789.0	9.10	219.50	787.3	-25.8	-6.0	25.6	4.12	2.67	
835.0	10.20	202.90	832.6	-32.3	-9.9	33.2	6.48	2.39	
881.0	11.10	208.60	877.8	-40.0	-13.6	41.7	3.01	1.96	
927.0	11.60	212.70	922.9	-47.7	-18.2	50.7	2.06	1.09	
973.0	12.80	205.80	967.9	-56.2	-22.9	60.4	4.10	2.61	
1,064.0	15.80	210.30	1,056.1	-76.0	-33.6	82.9	3.51	3.30	
1,156.0	18.10	208.90	1,144.1	-99.3	-46.8	109.7	2.54	2.50	
1,248.0	21.20	211.30	1,230.7	-126.1	-62.4	140.6	3.48	3.37	
1,339.0	25.50	208.80	1,314.2	-157.3	-80.3	176.6	4.85	4.73	
1,431.0	30.50	210.60	1,395.4	-194.8	-101.8	219.8	5.51	5.43	
1,523.0	31.90	210.80	1,474.1	-235.8	-126.1	267.4	1.53	1.52	
1,615.0	31.30	210.80	1,552.5	-277.2	-150.8	315.5	0.65	-0.65	
1,650.0	31.30	208.40	1,582.4	-293.0	-159.8	333.7	3.56	0.00	Last Cathedral Survey @ 1650' MD
1,753.0	30.40	208.80	1,670.8	-339.3	-185.1	386.5	0.90	-0.87	
1,798.0	29.50	208.50	1,709.8	-359.1	-195.8	409.0	2.03	-2.00	
1,890.0	25.70	208.70	1,791.3	-396.5	-216.2	451.6	4.13	-4.13	
1,982.0	28.80	211.10	1,873.1	-433.0	-237.3	493.7	3.57	3.37	
2,074.0	31.86	212.30	1,952.5	-472.5	-261.7	540.0	3.39	3.33	
2,165.0	34.30	212.60	2,028.7	-514.4	-288.3	589.5	2.69	2.68	
2,257.0	33.90	208.20	2,104.9	-558.8	-314.4	641.0	2.72	-0.43	
2,348.0	33.40	207.40	2,180.7	-603.4	-338.0	691.5	0.73	-0.55	
2,440.0	31.80	208.10	2,258.2	-647.3	-361.0	741.0	1.79	-1.74	
2,534.0	29.60	206.10	2,339.0	-690.0	-382.9	789.0	2.58	-2.34	
2,624.0	31.30	204.90	2,416.6	-731.2	-402.5	834.6	2.01	1.89	
2,716.0	29.60	204.30	2,495.9	-773.6	-421.9	881.1	1.88	-1.85	
2,809.0	31.10	204.70	2,576.2	-816.3	-441.4	928.0	1.63	1.61	
2,901.0	34.30	204.60	2,653.6	-861.5	-462.2	977.6	3.48	3.48	
2,993.0	32.70	204.50	2,730.3	-907.7	-483.3	1,028.3	1.74	-1.74	
3,084.0	31.60	207.10	2,807.3	-951.3	-504.3	1,076.7	1.94	-1.21	
3,176.0	29.80	206.40	2,886.4	-993.2	-525.5	1,123.6	1.99	-1.96	
3,268.0	28.70	212.70	2,966.7	-1,032.3	-547.6	1,168.5	3.55	-1.20	
3,359.0	30.80	212.00	3,045.7	-1,070.4	-571.7	1,213.5	2.34	2.31	
3,451.0	32.90	210.60	3,123.9	-1,111.9	-596.9	1,262.0	2.42	2.28	
3,542.0	32.70	206.90	3,200.4	-1,155.1	-620.6	1,311.3	2.21	-0.22	
3,634.0	30.90	205.30	3,278.6	-1,198.6	-642.0	1,359.7	2.16	-1.96	
3,725.0	30.70	209.80	3,356.7	-1,239.9	-663.5	1,406.3	2.54	-0.22	
3,817.0	31.20	208.30	3,435.6	-1,281.3	-686.5	1,453.6	1.00	0.54	
3,909.0	28.80	207.90	3,515.3	-1,321.9	-708.1	1,499.6	2.62	-2.61	
4,000.0	30.20	206.90	3,594.5	-1,361.6	-728.8	1,544.4	1.63	1.54	
4,092.0	32.00	206.20	3,673.3	-1,404.2	-750.0	1,591.9	2.00	1.96	
4,184.0	29.60	206.20	3,752.3	-1,446.4	-770.8	1,639.0	2.61	-2.61	
4,275.0	26.30	206.60	3,832.7	-1,484.6	-789.7	1,681.6	3.63	-3.63	
4,366.0	22.00	205.40	3,915.7	-1,518.1	-806.1	1,718.8	4.76	-4.73	
4,458.0	19.10	205.30	4,001.8	-1,547.2	-819.9	1,751.1	3.15	-3.15	
4,549.0	16.10	204.60	4,088.5	-1,572.2	-831.5	1,778.5	3.30	-3.30	
4,641.0	14.20	204.80	4,177.3	-1,594.0	-841.6	1,802.5	2.07	-2.07	
4,733.0	15.40	202.80	4,266.3	-1,615.5	-851.0	1,826.0	1.42	1.30	
4,824.0	14.40	202.60	4,354.2	-1,637.1	-860.1	1,849.3	1.10	-1.10	
4,916.0	14.50	208.40	4,443.3	-1,657.8	-869.9	1,872.2	1.58	0.11	
5,008.0	13.30	210.40	4,532.6	-1,677.1	-880.8	1,894.3	1.40	-1.30	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well NP WF13C-22 K22 596
Project:	North Piceance	TVD Reference:	WELL @ 6546.0ft (Patterson #303)
Site:	K22 596 Pad (S22-T5S-R96W)	MD Reference:	WELL @ 6546.0ft (Patterson #303)
Well:	NP WF13C-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
5,099.0	12.40	210.60	4,621.4	-1,694.5	-891.0	1,914.5	0.99	-0.99	
5,191.0	10.90	209.30	4,711.5	-1,710.6	-900.3	1,933.0	1.66	-1.63	
5,283.0	8.60	194.60	4,802.1	-1,724.8	-906.3	1,948.4	3.67	-2.50	
5,374.0	5.50	204.90	4,892.4	-1,735.4	-909.9	1,959.4	3.67	-3.41	
5,466.0	2.80	188.10	4,984.2	-1,741.6	-912.1	1,965.9	3.19	-2.93	
5,558.0	2.50	182.40	5,076.1	-1,745.8	-912.5	1,969.8	0.43	-0.33	
5,649.0	2.60	208.50	5,167.0	-1,749.6	-913.5	1,973.7	1.27	0.11	
5,741.0	2.20	220.70	5,258.9	-1,752.8	-915.7	1,977.5	0.70	-0.43	
5,833.0	0.80	199.30	5,350.9	-1,754.8	-917.0	1,979.9	1.61	-1.52	
5,924.0	0.40	166.30	5,441.9	-1,755.7	-917.2	1,980.7	0.56	-0.44	
6,016.0	0.50	184.00	5,533.9	-1,756.4	-917.1	1,981.3	0.18	0.11	
6,107.0	0.40	222.90	5,624.9	-1,757.0	-917.4	1,982.0	0.35	-0.11	
6,199.0	0.50	237.60	5,716.9	-1,757.5	-917.9	1,982.7	0.17	0.11	
6,291.0	1.10	255.50	5,808.9	-1,757.9	-919.1	1,983.6	0.70	0.65	
6,382.0	1.40	253.00	5,899.8	-1,758.4	-921.0	1,985.0	0.33	0.33	
6,474.0	1.20	199.90	5,991.8	-1,759.7	-922.4	1,986.7	1.28	-0.22	
6,566.0	0.80	135.90	6,083.8	-1,761.0	-922.3	1,987.9	1.21	-0.43	
6,657.0	0.50	116.90	6,174.8	-1,761.7	-921.5	1,988.1	0.40	-0.33	
6,749.0	0.40	158.20	6,266.8	-1,762.2	-921.0	1,988.3	0.36	-0.11	
6,841.0	0.40	167.20	6,358.8	-1,762.8	-920.8	1,988.7	0.07	0.00	
6,932.0	0.40	184.10	6,449.8	-1,763.4	-920.8	1,989.3	0.13	0.00	
7,024.0	0.70	214.80	6,541.8	-1,764.2	-921.1	1,990.1	0.45	0.33	
7,116.0	0.20	264.40	6,633.8	-1,764.6	-921.6	1,990.8	0.64	-0.54	
7,207.0	0.30	252.90	6,724.8	-1,764.7	-922.0	1,991.0	0.12	0.11	
7,299.0	1.00	265.00	6,816.8	-1,764.9	-923.0	1,991.6	0.77	0.76	
7,390.0	1.50	265.10	6,907.8	-1,765.0	-925.0	1,992.7	0.55	0.55	
7,482.0	1.30	254.30	6,999.7	-1,765.4	-927.2	1,994.1	0.36	-0.22	
7,574.0	1.20	259.90	7,091.7	-1,765.9	-929.2	1,995.4	0.17	-0.11	
7,665.0	1.30	260.10	7,182.7	-1,766.2	-931.1	1,996.6	0.11	0.11	
7,757.0	0.80	265.70	7,274.7	-1,766.5	-932.8	1,997.6	0.55	-0.54	
7,848.0	0.90	271.40	7,365.7	-1,766.5	-934.1	1,998.3	0.14	0.11	
7,940.0	1.20	272.60	7,457.7	-1,766.4	-935.8	1,999.0	0.33	0.33	
8,032.0	1.60	351.30	7,549.6	-1,765.1	-937.0	1,998.4	1.96	0.43	
8,123.0	1.30	344.30	7,640.6	-1,762.9	-937.5	1,996.6	0.38	-0.33	
8,215.0	1.00	334.00	7,732.6	-1,761.1	-938.1	1,995.4	0.39	-0.33	
8,306.0	0.60	308.70	7,823.6	-1,760.1	-938.8	1,994.8	0.58	-0.44	
8,398.0	0.70	257.70	7,915.6	-1,759.9	-939.7	1,995.1	0.62	0.11	
8,489.0	1.10	245.70	8,006.6	-1,760.4	-941.1	1,996.2	0.48	0.44	
8,581.0	1.10	253.30	8,098.5	-1,761.0	-942.7	1,997.5	0.16	0.00	
8,673.0	0.80	327.50	8,190.5	-1,760.7	-943.9	1,997.8	1.27	-0.33	
8,764.0	0.90	318.00	8,281.5	-1,759.7	-944.7	1,997.2	0.19	0.11	
8,856.0	1.10	294.10	8,373.5	-1,758.8	-946.0	1,997.0	0.50	0.22	
8,947.0	1.10	274.00	8,464.5	-1,758.4	-947.7	1,997.5	0.42	0.00	
9,038.0	1.50	261.40	8,555.5	-1,758.5	-949.7	1,998.5	0.54	0.44	
9,130.0	2.00	252.40	8,647.4	-1,759.1	-952.5	2,000.4	0.62	0.54	
9,221.0	2.10	250.50	8,738.4	-1,760.2	-955.5	2,002.8	0.13	0.11	
9,275.0	2.00	248.00	8,792.3	-1,760.9	-957.4	2,004.2	0.25	-0.19	Last Cathedral svy @ 9275'

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference: Well NP WF13C-22 K22 596
Project: North Piceance	TVD Reference: WELL @ 6546.0ft (Patterson #303)
Site: K22 596 Pad (S22-T5S-R96W)	MD Reference: WELL @ 6546.0ft (Patterson #303)
Well: NP WF13C-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 WF13C-22 BHL	0.00	0.00	8,664.0	-1,760.5	-937.0	1,652,379.98	2,249,836.31	39° 35' 39.79 N	108° 9' 44.58 W
- actual wellpath misses target center by 16.0ft at 9146.1ft MD (8663.5 TVD, -1759.3 N, -953.0 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									
K22 596 WF13C-22 TG ¹	0.00	0.00	5,100.0	-1,746.5	-913.0	1,652,393.29	2,249,860.72	39° 35' 39.93 N	108° 9' 44.27 W
- actual wellpath misses target center by 0.6ft at 5581.9ft MD (5100.0 TVD, -1746.9 N, -912.6 E)									
- Point									

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,650.0	1,582.4	-293.0	-159.8	Last Cathedral Survey @ 1650' MD	
9,275.0	8,792.3	-1,760.9	-957.4	Last Cathedral svy @ 9275'	

Checked By: _____ Approved By: _____ Date: _____