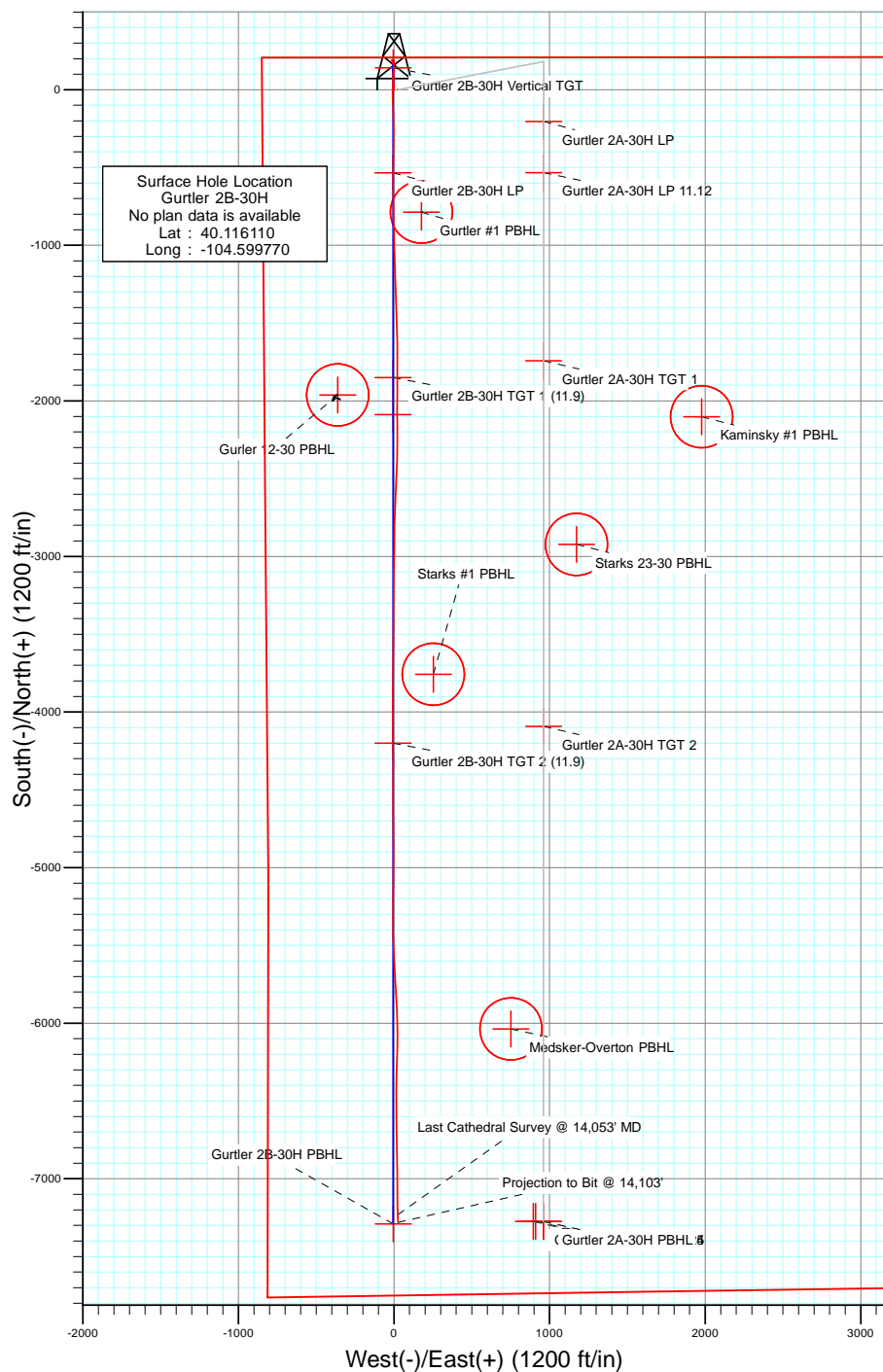
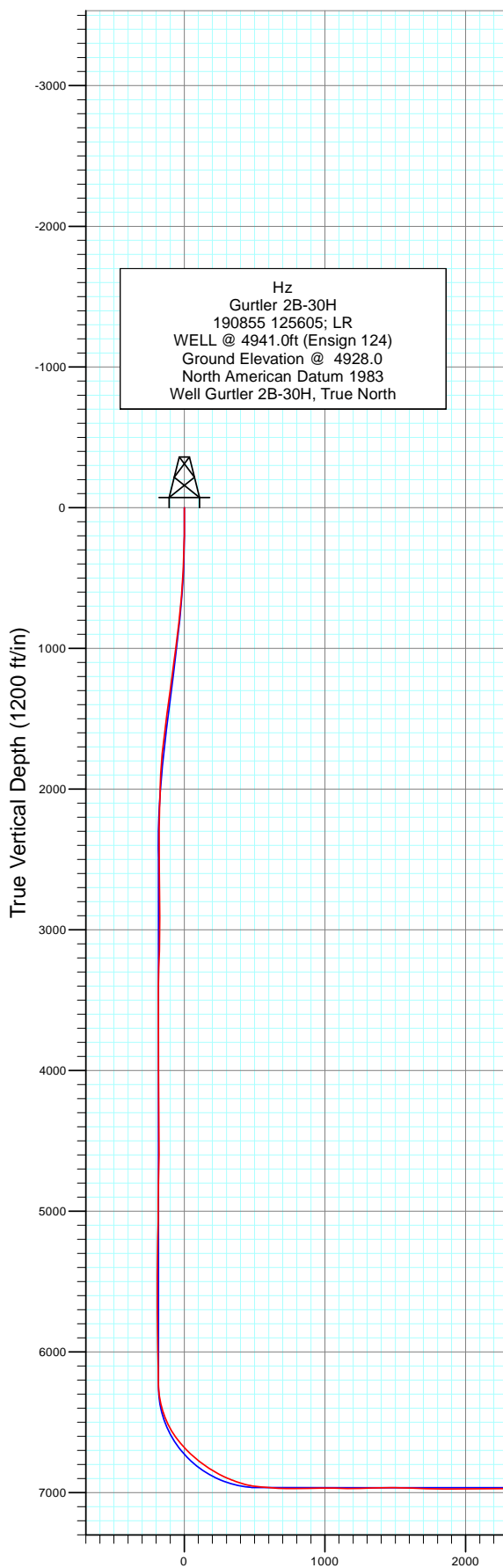




Project: DJ Wattenberg
Site: NWNW S30-T2N-R64W (Gurtler)
Well: Gurtler 2B-30H
Wellbore: Hz
Design: FINAL

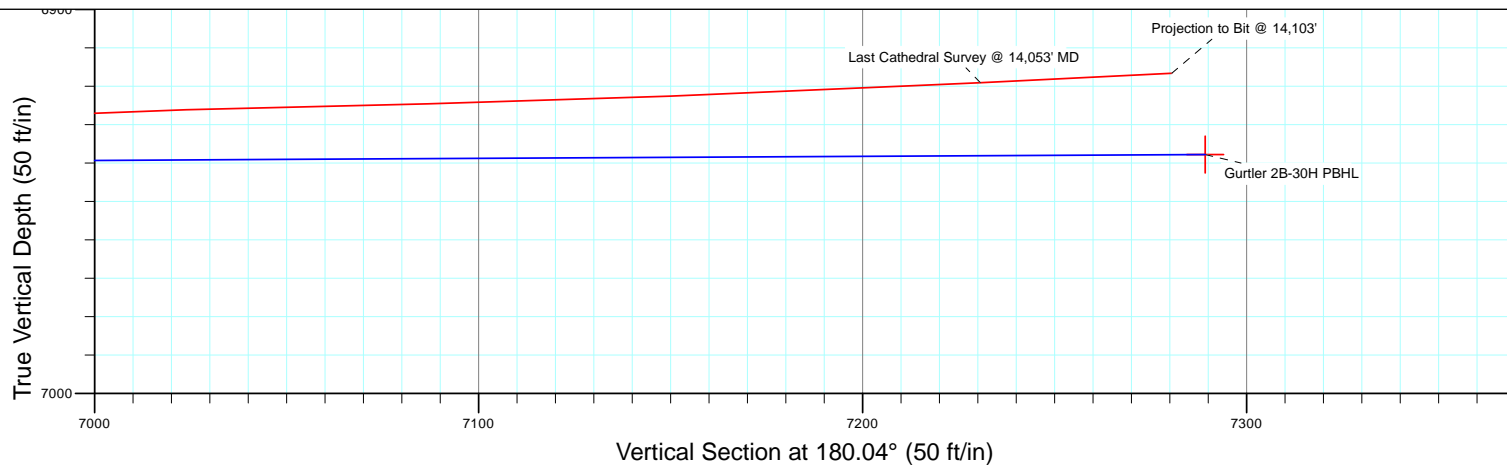
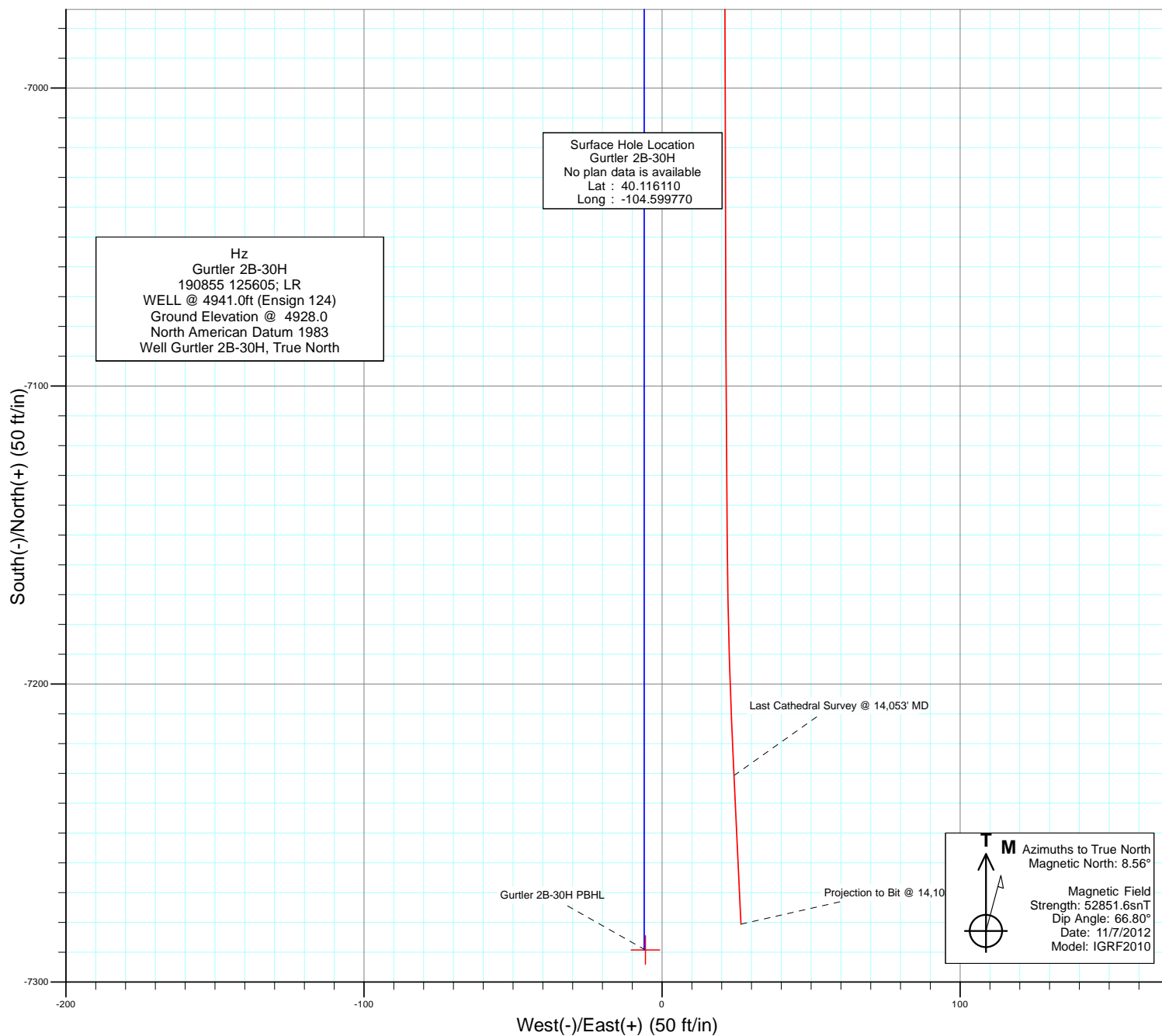


M Azimuths to True North
Magnetic North: 8.56°
Magnetic Field
Strength: 52851.6snT
Dip Angle: 66.80°
Date: 11/7/2012
Model: IGRF2010

Projection to Bit @ 14,103'
Last Cathedral Survey @ 14,053' MD
Gurtler 2B-30H PBHL



Project: DJ Wattenberg
Site: NWNW S30-T2N-R64W (Gurtler)
Well: Gurtler 2B-30H
Wellbore: Hz
Design: FINAL



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Gurtler 2B-30H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4941.0ft (Ensign 124)
Site:	NWNW S30-T2N-R64W (Gurtler)	MD Reference:	WELL @ 4941.0ft (Ensign 124)
Well:	Gurtler 2B-30H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	USA EDM 5000 Multi Users DB

Project	DJ Wattenberg		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		NWNW S30-T2N-R64W (Gurtler)			
Site Position:		Northing:	1,286,423.76 ft	Latitude:	40.116110
From:	Lat/Long	Easting:	3,251,800.62 ft	Longitude:	-104.599680
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.58 °

Well	Gurtler 2B-30H					
Well Position	+N/-S	0.0 ft	Northing:	1,286,423.49 ft	Latitude:	40.116110
	+E/-W	0.0 ft	Easting:	3,251,775.45 ft	Longitude:	-104.599770
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,928.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/7/2012	8.56	66.80	52,852

Design	Hz				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	180.04	

Survey Program	Date	11/23/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
137.0	14,103.0	Survey #1 (Hz)	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		
137.0	0.40	256.10	137.0	-0.1	-0.5	0.1	0.29	0.29		
199.0	0.50	336.90	199.0	0.1	-0.8	-0.1	0.95	0.16		
292.0	1.80	2.90	292.0	1.9	-0.9	-1.9	1.47	1.40		
354.0	2.40	5.10	353.9	4.2	-0.7	-4.2	0.98	0.97		
416.0	2.30	7.90	415.9	6.7	-0.4	-6.7	0.25	-0.16		
478.0	3.20	356.30	477.8	9.7	-0.4	-9.7	1.70	1.45		
540.0	3.70	0.20	539.7	13.4	-0.5	-13.4	0.89	0.81		
602.0	4.50	355.00	601.5	17.8	-0.7	-17.8	1.42	1.29		
664.0	5.30	359.10	663.3	23.1	-0.9	-23.1	1.41	1.29		
726.0	5.40	357.70	725.0	28.9	-1.1	-28.9	0.27	0.16		
788.0	5.80	357.70	786.7	34.9	-1.3	-34.9	0.65	0.65		
850.0	7.20	356.60	848.3	41.9	-1.7	-41.9	2.27	2.26		

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Gurtler 2B-30H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4941.0ft (Ensign 124)
Site:	NWNW S30-T2N-R64W (Gurtler)	MD Reference:	WELL @ 4941.0ft (Ensign 124)
Well:	Gurtler 2B-30H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	USA EDM 5000 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
943.0	7.60	356.30	940.6	53.9	-2.4	-53.9	0.43	0.43	
1,036.0	7.10	349.90	1,032.8	65.7	-3.8	-65.7	1.03	-0.54	
1,100.0	7.20	353.80	1,096.3	73.6	-5.0	-73.6	0.77	0.16	
1,193.0	7.60	352.70	1,188.5	85.5	-6.4	-85.5	0.46	0.43	
1,286.0	7.30	8.60	1,280.8	97.4	-6.3	-97.4	2.23	-0.32	
1,379.0	7.60	7.50	1,373.0	109.3	-4.6	-109.3	0.36	0.32	
1,472.0	7.60	5.70	1,465.2	121.6	-3.2	-121.6	0.26	0.00	
1,568.0	8.40	3.80	1,560.2	134.9	-2.1	-134.9	0.88	0.83	
1,663.0	6.30	357.80	1,654.4	147.0	-1.8	-147.0	2.35	-2.21	
1,758.0	5.40	347.40	1,748.9	156.6	-3.0	-156.6	1.46	-0.95	
1,853.0	4.10	336.90	1,843.6	164.1	-5.3	-164.1	1.64	-1.37	
1,948.0	1.80	353.50	1,938.5	168.7	-6.8	-168.7	2.56	-2.42	
2,043.0	1.90	5.60	2,033.4	171.7	-6.8	-171.7	0.42	0.11	
2,138.0	1.80	20.60	2,128.4	174.7	-6.1	-174.7	0.52	-0.11	
2,233.0	1.80	19.50	2,223.3	177.5	-5.1	-177.5	0.04	0.00	
2,328.0	0.60	61.50	2,318.3	179.1	-4.2	-179.1	1.49	-1.26	
2,424.0	1.00	117.00	2,414.3	179.0	-3.0	-179.0	0.86	0.42	
2,519.0	0.90	119.00	2,509.3	178.3	-1.6	-178.3	0.11	-0.11	
2,614.0	1.40	137.50	2,604.3	177.0	-0.2	-177.0	0.65	0.53	
2,709.0	0.90	203.60	2,699.3	175.5	0.3	-175.5	1.39	-0.53	
2,804.0	0.80	253.30	2,794.3	174.6	-0.6	-174.6	0.76	-0.11	
2,899.0	2.20	258.80	2,889.2	174.1	-3.0	-174.1	1.48	1.47	
2,994.0	1.00	11.50	2,984.2	174.5	-4.7	-174.5	2.89	-1.26	
3,089.0	1.40	21.40	3,079.2	176.4	-4.1	-176.4	0.47	0.42	
3,184.0	1.70	20.40	3,174.2	178.8	-3.2	-178.8	0.32	0.32	
3,279.0	1.30	10.10	3,269.1	181.2	-2.5	-181.2	0.51	-0.42	
3,374.0	1.40	10.80	3,364.1	183.4	-2.1	-183.4	0.11	0.11	
3,469.0	0.40	186.30	3,459.1	184.2	-1.9	-184.2	1.89	-1.05	
3,564.0	0.60	261.40	3,554.1	183.8	-2.4	-183.8	0.66	0.21	
3,658.0	0.50	264.90	3,648.1	183.7	-3.3	-183.7	0.11	-0.11	
3,753.0	1.20	275.40	3,743.1	183.8	-4.7	-183.8	0.75	0.74	
3,848.0	1.80	279.00	3,838.0	184.1	-7.2	-184.1	0.64	0.63	
3,943.0	1.30	247.20	3,933.0	183.9	-9.6	-183.9	1.03	-0.53	
4,038.0	1.40	254.10	4,028.0	183.2	-11.8	-183.2	0.20	0.11	
4,133.0	1.70	267.30	4,122.9	182.8	-14.3	-182.8	0.49	0.32	
4,228.0	0.90	231.60	4,217.9	182.3	-16.3	-182.2	1.16	-0.84	
4,323.0	1.60	213.30	4,312.9	180.7	-17.6	-180.7	0.84	0.74	
4,418.0	0.70	100.10	4,407.9	179.5	-17.7	-179.5	2.09	-0.95	
4,513.0	0.60	60.10	4,502.9	179.6	-16.7	-179.6	0.48	-0.11	
4,608.0	0.80	39.90	4,597.9	180.4	-15.9	-180.4	0.33	0.21	
4,703.0	0.90	48.60	4,692.9	181.4	-14.9	-181.4	0.17	0.11	
4,797.0	1.60	29.50	4,786.8	183.0	-13.7	-183.0	0.86	0.74	
4,892.0	2.00	55.10	4,881.8	185.1	-11.7	-185.1	0.93	0.42	
4,987.0	0.40	179.90	4,976.8	185.7	-10.3	-185.7	2.37	-1.68	
5,082.0	1.30	317.00	5,071.8	186.2	-11.1	-186.2	1.70	0.95	
5,177.0	2.00	322.10	5,166.7	188.3	-12.8	-188.3	0.75	0.74	
5,273.0	0.50	7.50	5,262.7	190.0	-13.8	-190.0	1.76	-1.56	
5,368.0	0.90	57.30	5,357.7	190.8	-13.1	-190.8	0.73	0.42	
5,463.0	1.30	55.40	5,452.7	191.9	-11.6	-191.8	0.42	0.42	
5,558.0	0.80	126.40	5,547.7	192.1	-10.2	-192.1	1.35	-0.53	
5,653.0	1.80	85.60	5,642.6	191.8	-8.1	-191.8	1.37	1.05	
5,748.0	1.70	97.80	5,737.6	191.7	-5.3	-191.7	0.41	-0.11	
5,843.0	1.10	148.30	5,832.6	190.7	-3.4	-190.7	1.38	-0.63	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Gurtler 2B-30H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4941.0ft (Ensign 124)
Site:	NWNW S30-T2N-R64W (Gurtler)	MD Reference:	WELL @ 4941.0ft (Ensign 124)
Well:	Gurtler 2B-30H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	USA EDM 5000 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
5,938.0	1.10	139.00	5,927.6	189.3	-2.3	-189.3	0.19	0.00	
6,032.0	1.10	149.20	6,021.5	187.8	-1.3	-187.8	0.21	0.00	
6,127.0	1.40	164.80	6,116.5	185.9	-0.5	-185.9	0.47	0.32	
6,221.0	0.90	170.20	6,210.5	184.1	-0.1	-184.1	0.54	-0.53	
6,253.0	2.30	168.00	6,242.5	183.2	0.1	-183.2	4.38	4.37	
6,284.0	4.40	173.20	6,273.4	181.4	0.4	-181.4	6.84	6.77	
6,316.0	7.20	173.20	6,305.3	178.2	0.8	-178.2	8.75	8.75	
6,348.0	10.50	174.70	6,336.9	173.3	1.3	-173.3	10.34	10.31	
6,379.0	12.90	178.70	6,367.2	167.0	1.6	-167.0	8.17	7.74	
6,410.0	15.80	181.10	6,397.3	159.4	1.6	-159.4	9.55	9.35	
6,442.0	18.00	183.80	6,427.9	150.1	1.2	-150.1	7.30	6.87	
6,474.0	20.40	185.00	6,458.1	139.6	0.4	-139.6	7.60	7.50	
6,505.0	23.00	183.70	6,486.9	128.2	-0.5	-128.2	8.53	8.39	
6,537.0	26.20	184.00	6,516.0	114.9	-1.4	-114.9	10.01	10.00	
6,568.0	29.50	183.70	6,543.4	100.4	-2.3	-100.4	10.65	10.65	
6,600.0	33.00	184.90	6,570.7	83.9	-3.6	-83.9	11.11	10.94	
6,631.0	35.60	185.00	6,596.3	66.5	-5.1	-66.5	8.39	8.39	
6,663.0	37.70	183.60	6,622.0	47.4	-6.5	-47.4	7.06	6.56	
6,694.0	39.70	182.70	6,646.2	28.1	-7.6	-28.1	6.70	6.45	
6,726.0	41.90	181.40	6,670.4	7.2	-8.3	-7.2	7.37	6.87	
6,757.0	43.50	180.30	6,693.2	-13.8	-8.6	13.8	5.69	5.16	
6,789.0	45.50	179.30	6,716.0	-36.3	-8.6	36.3	6.62	6.25	
6,820.0	47.80	178.90	6,737.3	-58.8	-8.2	58.8	7.48	7.42	
6,852.0	50.10	178.40	6,758.3	-82.9	-7.6	82.9	7.28	7.19	
6,884.0	52.40	178.40	6,778.4	-107.9	-6.9	107.9	7.19	7.19	
6,915.0	54.40	178.10	6,796.8	-132.7	-6.2	132.8	6.50	6.45	
6,947.0	55.60	176.50	6,815.2	-158.9	-4.9	158.9	5.55	3.75	
6,979.0	57.30	177.00	6,832.9	-185.6	-3.4	185.6	5.47	5.31	
7,010.0	59.40	178.00	6,849.1	-211.9	-2.3	211.9	7.31	6.77	
7,042.0	61.60	179.10	6,864.9	-239.8	-1.6	239.8	7.50	6.87	
7,074.0	63.80	179.60	6,879.6	-268.2	-1.2	268.2	7.01	6.87	
7,105.0	66.30	180.00	6,892.7	-296.3	-1.2	296.3	8.15	8.06	
7,137.0	68.60	180.70	6,904.9	-325.8	-1.3	325.8	7.47	7.19	
7,160.0	69.60	181.60	6,913.1	-347.3	-1.8	347.3	5.68	4.35	
7,228.0	72.00	181.50	6,935.5	-411.5	-3.5	411.5	3.53	3.53	
7,259.0	76.00	181.00	6,944.0	-441.3	-4.2	441.3	13.00	12.90	
7,291.0	80.20	180.50	6,950.6	-472.6	-4.6	472.6	13.21	13.12	
7,322.0	83.10	180.60	6,955.1	-503.3	-4.9	503.3	9.36	9.35	
7,354.0	85.00	180.20	6,958.4	-535.1	-5.1	535.1	6.07	5.94	
7,386.0	85.10	180.40	6,961.2	-567.0	-5.2	567.0	0.70	0.31	
7,418.0	85.00	180.00	6,964.0	-598.9	-5.4	598.9	1.28	-0.31	
7,449.0	85.90	179.30	6,966.4	-629.8	-5.2	629.8	3.67	2.90	
7,481.0	85.90	178.90	6,968.7	-661.7	-4.7	661.7	1.25	0.00	
7,513.0	87.90	179.20	6,970.4	-693.6	-4.1	693.6	6.32	6.25	
7,544.0	89.90	179.80	6,971.0	-724.6	-3.9	724.6	6.74	6.45	
7,575.0	90.40	179.60	6,971.0	-755.6	-3.7	755.6	1.74	1.61	
7,606.0	90.60	179.30	6,970.7	-786.6	-3.4	786.6	1.16	0.65	
7,699.0	91.30	178.50	6,969.2	-879.6	-1.6	879.6	1.14	0.75	
7,792.0	90.20	178.40	6,967.9	-972.5	0.9	972.5	1.19	-1.18	
7,885.0	89.00	178.50	6,968.6	-1,065.5	3.4	1,065.5	1.29	-1.29	
7,978.0	89.00	178.00	6,970.2	-1,158.4	6.3	1,158.4	0.54	0.00	
8,071.0	91.40	178.50	6,969.9	-1,251.4	9.1	1,251.4	2.64	2.58	
8,164.0	92.00	177.50	6,967.1	-1,344.3	12.3	1,344.3	1.25	0.65	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Gurtler 2B-30H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4941.0ft (Ensign 124)
Site:	NWNW S30-T2N-R64W (Gurtler)	MD Reference:	WELL @ 4941.0ft (Ensign 124)
Well:	Gurtler 2B-30H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	USA EDM 5000 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
8,226.0	91.40	178.00	6,965.3	-1,406.2	14.8	1,406.2	1.26	-0.97	
8,288.0	89.90	177.70	6,964.6	-1,468.2	17.1	1,468.1	2.47	-2.42	
8,350.0	88.50	178.20	6,965.4	-1,530.1	19.3	1,530.1	2.40	-2.26	
8,443.0	88.20	179.40	6,968.1	-1,623.1	21.3	1,623.0	1.33	-0.32	
8,536.0	87.90	179.90	6,971.3	-1,716.0	21.8	1,716.0	0.63	-0.32	
8,598.0	88.70	180.60	6,973.1	-1,778.0	21.6	1,778.0	1.71	1.29	
8,660.0	89.50	180.30	6,974.1	-1,840.0	21.1	1,839.9	1.38	1.29	
8,722.0	90.30	179.70	6,974.2	-1,902.0	21.1	1,901.9	1.61	1.29	
8,784.0	89.70	180.50	6,974.2	-1,964.0	21.0	1,963.9	1.61	-0.97	
8,846.0	90.40	180.40	6,974.2	-2,026.0	20.5	2,025.9	1.14	1.13	
8,908.0	90.80	179.50	6,973.5	-2,088.0	20.5	2,087.9	1.59	0.65	
8,971.0	90.50	179.30	6,972.8	-2,150.9	21.2	2,150.9	0.57	-0.48	
9,035.0	90.70	179.90	6,972.1	-2,214.9	21.6	2,214.9	0.99	0.31	
9,098.0	91.90	180.90	6,970.7	-2,277.9	21.2	2,277.9	2.48	1.90	
9,162.0	90.90	181.10	6,969.1	-2,341.9	20.1	2,341.9	1.59	-1.56	
9,225.0	89.60	181.70	6,968.9	-2,404.9	18.5	2,404.9	2.27	-2.06	
9,288.0	89.90	181.90	6,969.1	-2,467.8	16.6	2,467.8	0.57	0.48	
9,352.0	90.20	182.80	6,969.1	-2,531.8	13.9	2,531.8	1.48	0.47	
9,415.0	89.90	182.40	6,969.0	-2,594.7	11.1	2,594.7	0.79	-0.48	
9,479.0	90.90	182.80	6,968.6	-2,658.6	8.2	2,658.6	1.68	1.56	
9,542.0	90.60	182.10	6,967.7	-2,721.6	5.5	2,721.6	1.21	-0.48	
9,605.0	90.60	181.30	6,967.1	-2,784.6	3.6	2,784.5	1.27	0.00	
9,669.0	90.50	180.80	6,966.5	-2,848.5	2.4	2,848.5	0.80	-0.16	
9,732.0	90.70	179.90	6,965.8	-2,911.5	2.1	2,911.5	1.46	0.32	
9,796.0	90.30	181.50	6,965.3	-2,975.5	1.3	2,975.5	2.58	-0.62	
9,859.0	90.60	181.10	6,964.8	-3,038.5	-0.2	3,038.5	0.79	0.48	
9,954.0	90.90	180.60	6,963.5	-3,133.5	-1.6	3,133.5	0.61	0.32	
10,049.0	90.10	180.00	6,962.7	-3,228.5	-2.1	3,228.5	1.05	-0.84	
10,144.0	89.30	180.60	6,963.2	-3,323.5	-2.6	3,323.5	1.05	-0.84	
10,239.0	89.50	180.60	6,964.2	-3,418.5	-3.6	3,418.5	0.21	0.21	
10,335.0	89.80	179.50	6,964.8	-3,514.5	-3.6	3,514.5	1.19	0.31	
10,430.0	89.10	180.60	6,965.7	-3,609.5	-3.7	3,609.5	1.37	-0.74	
10,525.0	90.20	181.20	6,966.3	-3,704.4	-5.2	3,704.4	1.32	1.16	
10,620.0	90.00	181.10	6,966.1	-3,799.4	-7.1	3,799.4	0.24	-0.21	
10,683.0	90.90	180.20	6,965.6	-3,862.4	-7.8	3,862.4	2.02	1.43	
10,746.0	90.90	179.90	6,964.6	-3,925.4	-7.9	3,925.4	0.48	0.00	
10,809.0	90.80	180.00	6,963.7	-3,988.4	-7.8	3,988.4	0.22	-0.16	
10,872.0	90.50	179.20	6,963.0	-4,051.4	-7.4	4,051.4	1.36	-0.48	
10,936.0	91.70	179.70	6,961.7	-4,115.4	-6.8	4,115.4	2.03	1.87	
10,999.0	91.30	179.50	6,960.1	-4,178.4	-6.3	4,178.4	0.71	-0.63	
11,062.0	90.90	179.90	6,958.9	-4,241.3	-6.0	4,241.3	0.90	-0.63	
11,125.0	91.30	179.30	6,957.7	-4,304.3	-5.6	4,304.3	1.14	0.63	
11,189.0	90.90	180.40	6,956.4	-4,368.3	-5.4	4,368.3	1.83	-0.62	
11,252.0	90.30	180.60	6,955.8	-4,431.3	-6.0	4,431.3	1.00	-0.95	
11,315.0	90.50	180.00	6,955.3	-4,494.3	-6.3	4,494.3	1.00	0.32	
11,379.0	90.80	179.60	6,954.6	-4,558.3	-6.1	4,558.3	0.78	0.47	
11,442.0	89.00	179.60	6,954.7	-4,621.3	-5.6	4,621.3	2.86	-2.86	
11,505.0	88.90	179.00	6,955.9	-4,684.3	-4.9	4,684.3	0.97	-0.16	
11,568.0	89.60	178.90	6,956.7	-4,747.3	-3.7	4,747.3	1.12	1.11	
11,631.0	90.20	179.20	6,956.8	-4,810.3	-2.7	4,810.3	1.06	0.95	
11,695.0	90.90	180.20	6,956.2	-4,874.3	-2.3	4,874.3	1.91	1.09	
11,758.0	91.60	179.40	6,954.8	-4,937.2	-2.1	4,937.2	1.69	1.11	
11,821.0	92.20	182.20	6,952.7	-5,000.2	-3.0	5,000.2	4.54	0.95	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Gurtler 2B-30H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4941.0ft (Ensign 124)
Site:	NWNW S30-T2N-R64W (Gurtler)	MD Reference:	WELL @ 4941.0ft (Ensign 124)
Well:	Gurtler 2B-30H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	USA EDM 5000 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
11,885.0	92.10	180.60	6,950.3	-5,064.1	-4.5	5,064.1	2.50	-0.16	
11,948.0	91.30	180.30	6,948.5	-5,127.1	-5.0	5,127.1	1.36	-1.27	
12,012.0	91.00	181.10	6,947.2	-5,191.1	-5.8	5,191.1	1.33	-0.47	
12,075.0	90.50	180.10	6,946.3	-5,254.1	-6.5	5,254.1	1.77	-0.79	
12,138.0	90.30	180.30	6,945.9	-5,317.1	-6.7	5,317.1	0.45	-0.32	
12,201.0	91.10	179.80	6,945.1	-5,380.1	-6.7	5,380.1	1.50	1.27	
12,264.0	91.30	178.30	6,943.8	-5,443.0	-5.7	5,443.0	2.40	0.32	
12,327.0	90.30	178.10	6,942.9	-5,506.0	-3.7	5,506.0	1.62	-1.59	
12,391.0	90.10	177.20	6,942.7	-5,569.9	-1.1	5,569.9	1.44	-0.31	
12,454.0	90.60	176.00	6,942.3	-5,632.8	2.6	5,632.8	2.06	0.79	
12,518.0	91.60	175.70	6,941.1	-5,696.6	7.3	5,696.6	1.63	1.56	
12,581.0	89.90	176.60	6,940.3	-5,759.5	11.5	5,759.5	3.05	-2.70	
12,645.0	89.20	177.70	6,940.8	-5,823.4	14.7	5,823.4	2.04	-1.09	
12,708.0	89.50	177.70	6,941.5	-5,886.4	17.2	5,886.3	0.48	0.48	
12,772.0	90.50	177.70	6,941.5	-5,950.3	19.8	5,950.3	1.56	1.56	
12,835.0	91.50	179.80	6,940.4	-6,013.3	21.1	6,013.3	3.69	1.59	
12,898.0	91.80	179.60	6,938.6	-6,076.2	21.5	6,076.2	0.57	0.48	
12,962.0	92.20	180.50	6,936.3	-6,140.2	21.4	6,140.2	1.54	0.62	
13,025.0	91.70	181.90	6,934.2	-6,203.2	20.1	6,203.1	2.36	-0.79	
13,089.0	90.50	181.60	6,933.0	-6,267.1	18.1	6,267.1	1.93	-1.87	
13,152.0	89.30	181.80	6,933.1	-6,330.1	16.3	6,330.1	1.93	-1.90	
13,215.0	89.50	180.40	6,933.7	-6,393.1	15.1	6,393.1	2.24	0.32	
13,278.0	89.60	179.90	6,934.2	-6,456.1	14.9	6,456.1	0.81	0.16	
13,341.0	90.40	180.00	6,934.2	-6,519.1	15.0	6,519.1	1.28	1.27	
13,405.0	89.70	180.00	6,934.2	-6,583.1	15.0	6,583.1	1.09	-1.09	
13,468.0	89.30	178.50	6,934.7	-6,646.1	15.8	6,646.0	2.46	-0.63	
13,531.0	90.50	179.10	6,934.8	-6,709.0	17.1	6,709.0	2.13	1.90	
13,594.0	90.60	179.10	6,934.2	-6,772.0	18.1	6,772.0	0.16	0.16	
13,657.0	90.80	179.10	6,933.5	-6,835.0	19.1	6,835.0	0.32	0.32	
13,720.0	92.80	179.00	6,931.5	-6,898.0	20.1	6,898.0	3.18	3.17	
13,783.0	92.60	179.40	6,928.5	-6,960.9	21.0	6,960.9	0.71	-0.32	
13,846.0	91.70	180.10	6,926.2	-7,023.9	21.3	7,023.8	1.81	-1.43	
13,909.0	91.10	179.60	6,924.6	-7,086.8	21.4	7,086.8	1.24	-0.95	
13,972.0	92.50	179.70	6,922.6	-7,149.8	21.8	7,149.8	2.23	2.22	
14,035.0	92.40	177.60	6,919.9	-7,212.7	23.3	7,212.7	3.33	-0.16	
14,053.0	92.80	177.30	6,919.1	-7,230.7	24.1	7,230.7	2.78	2.22	Last Cathedral Survey @ 14,053' MD Projection to Bit @ 14,103'
14,103.0	92.80	177.30	6,916.7	-7,280.6	26.5	7,280.5	0.00	0.00	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Gurtler 2B-30H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4941.0ft (Ensign 124)
Site:	NWNW S30-T2N-R64W (Gurtler)	MD Reference:	WELL @ 4941.0ft (Ensign 124)
Well:	Gurtler 2B-30H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	USA EDM 5000 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									
Gurtler 2B-30H Vertical	0.00	0.00	1,800.0	140.1	-4.6	1,286,563.56	3,251,769.38	40.116495	-104.599787
- actual wellpath misses target center by 20.7ft at 1807.6ft MD (1798.4 TVD, 160.8 N, -4.1 E)									
- Point									
Gurtler 2B-30H TGT #1	0.00	0.00	6,965.0	-2,087.3	-6.0	1,284,336.27	3,251,790.69	40.110380	-104.599791
- actual wellpath misses target center by 27.8ft at 8907.4ft MD (6973.5 TVD, -2087.3 N, 20.5 E)									
- Point									
Gurtler 2B-30H TGT 2 (1	0.00	0.00	6,941.0	-4,200.1	-6.0	1,282,223.53	3,251,812.14	40.104580	-104.599791
- actual wellpath misses target center by 18.6ft at 11021.1ft MD (6959.6 TVD, -4200.5 N, -6.2 E)									
- Point									
Gurtler 2B-30H LP	0.00	0.00	6,947.0	-533.3	-6.0	1,285,890.11	3,251,774.84	40.114646	-104.599792
- actual wellpath misses target center by 11.3ft at 7351.1ft MD (6958.2 TVD, -532.2 N, -5.1 E)									
- Point									
Gurtler 2B-30H PBHL	0.00	0.00	6,937.8	-7,289.2	-5.6	1,279,134.60	3,251,843.86	40.096100	-104.599790
- actual wellpath misses target center by 39.3ft at 14103.0ft MD (6916.7 TVD, -7280.6 N, 26.5 E)									
- Point									
Gurtler 2B-30H TGT 1 (1	0.00	0.00	6,958.0	-1,850.1	-6.0	1,284,573.38	3,251,788.27	40.111031	-104.599791
- actual wellpath misses target center by 31.5ft at 8670.2ft MD (6974.2 TVD, -1850.1 N, 21.0 E)									
- Point									

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
14,053.0	6,919.1	-7,230.7	24.1	Last Cathedral Survey @ 14,053' MD	
14,103.0	6,916.7	-7,280.6	26.5	Projection to Bit @ 14,103'	

Checked By: _____ Approved By: _____ Date: _____