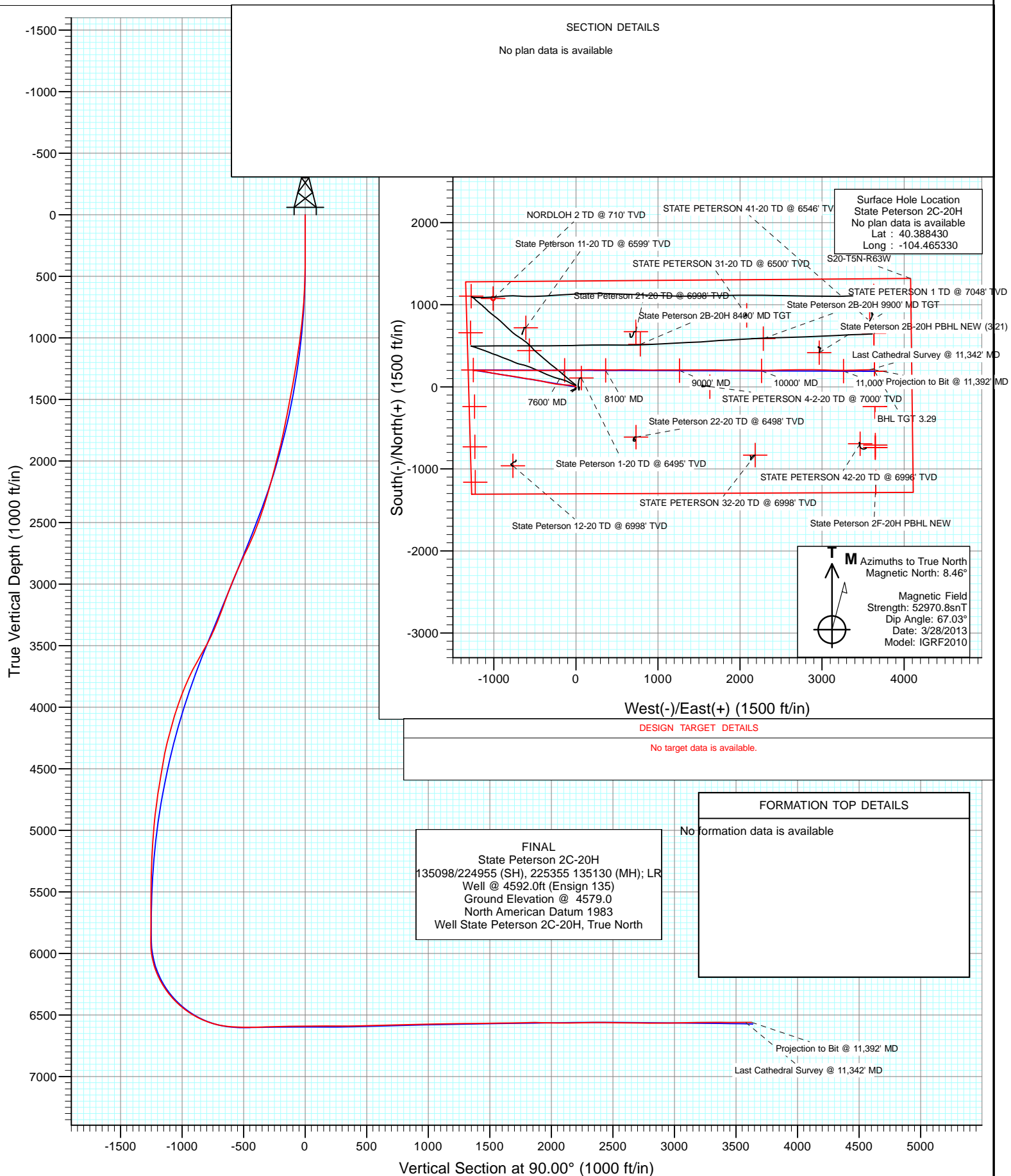




Project: DJ Wattenberg
Site: S20-T5N-R63W (State Peterson)
Well: State Peterson 2C-20H
Wellbore: Hz
Design: FINAL



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign 135)
Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign 135)
Well:	State Peterson 2C-20H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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		S20-T5N-R63W (State Peterson)			
Site Position:		Northing:	1,386,047.92 ft	Latitude:	40.388480
From:	Lat/Long	Easting:	3,288,215.31 ft	Longitude:	-104.465330
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.67 °

Well	State Peterson 2C-20H					
Well Position	+N/-S	0.0 ft	Northing:	1,386,029.69 ft	Latitude:	40.388430
	+E/-W	0.0 ft	Easting:	3,288,215.53 ft	Longitude:	-104.465330
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,579.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/28/2013	8.46	67.03	52,971

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	90.00	

Survey Program	Date	4/5/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
228.0	11,392.0	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		
228.0	0.20	76.20	228.0	0.1	0.4	0.4	0.09	0.09		
320.0	0.20	64.20	320.0	0.2	0.7	0.7	0.05	0.00		
412.0	0.70	305.10	412.0	0.6	0.4	0.4	0.89	0.54		
504.0	1.80	293.70	504.0	1.5	-1.4	-1.4	1.22	1.20		
595.0	2.70	295.50	594.9	3.0	-4.7	-4.7	0.99	0.99		
687.0	4.10	293.20	686.7	5.2	-9.6	-9.6	1.53	1.52		
779.0	5.40	290.90	778.4	8.1	-16.7	-16.7	1.43	1.41		
871.0	6.30	284.40	869.9	10.9	-25.6	-25.6	1.21	0.98		
942.0	6.90	282.30	940.5	12.7	-33.6	-33.6	0.91	0.85		
1,005.0	6.90	284.10	1,003.0	14.5	-40.9	-40.9	0.34	0.00		
1,097.0	8.00	279.80	1,094.2	16.9	-52.6	-52.6	1.34	1.20		
1,189.0	10.20	277.50	1,185.1	19.1	-67.0	-67.0	2.42	2.39		

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign 135)
Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign 135)
Well:	State Peterson 2C-20H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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
1,281.0	9.50	272.90	1,275.7	20.5	-82.7	-82.7	1.14	-0.76	
1,373.0	10.30	275.90	1,366.4	21.7	-98.4	-98.4	1.03	0.87	
1,465.0	10.50	274.10	1,456.8	23.2	-115.0	-115.0	0.41	0.22	
1,557.0	10.90	269.80	1,547.2	23.8	-132.0	-132.0	0.97	0.43	
1,649.0	11.20	270.30	1,637.5	23.8	-149.7	-149.7	0.34	0.33	
1,741.0	11.40	277.30	1,727.8	25.0	-167.6	-167.6	1.51	0.22	
1,833.0	12.60	277.30	1,817.7	27.4	-186.6	-186.6	1.30	1.30	
1,925.0	13.80	273.50	1,907.3	29.3	-207.5	-207.5	1.61	1.30	
2,020.0	15.10	277.50	1,999.3	31.7	-231.1	-231.1	1.72	1.37	
2,115.0	14.80	279.80	2,091.1	35.3	-255.3	-255.3	0.70	-0.32	
2,209.0	15.50	282.30	2,181.8	40.1	-279.4	-279.4	1.02	0.74	
2,304.0	17.80	281.00	2,272.8	45.5	-306.1	-306.1	2.45	2.42	
2,399.0	17.80	280.40	2,363.3	50.9	-334.6	-334.6	0.19	0.00	
2,493.0	19.50	282.50	2,452.4	56.9	-364.0	-364.0	1.94	1.81	
2,588.0	20.60	283.50	2,541.6	64.2	-395.8	-395.8	1.21	1.16	
2,682.0	23.60	280.30	2,628.7	71.5	-430.4	-430.4	3.44	3.19	
2,777.0	26.90	280.40	2,714.6	78.8	-470.2	-470.2	3.47	3.47	
2,872.0	24.40	279.30	2,800.2	85.8	-510.7	-510.7	2.68	-2.63	
2,966.0	24.30	278.80	2,885.9	91.9	-549.0	-549.0	0.24	-0.11	
3,061.0	23.00	278.60	2,972.9	97.7	-586.7	-586.7	1.37	-1.37	
3,155.0	20.20	279.10	3,060.3	103.0	-620.9	-620.9	2.99	-2.98	
3,250.0	20.90	282.80	3,149.2	109.3	-653.6	-653.6	1.55	0.74	
3,345.0	20.80	278.40	3,238.0	115.5	-686.8	-686.8	1.65	-0.11	
3,440.0	22.30	278.30	3,326.4	120.6	-721.3	-721.3	1.58	1.58	
3,534.0	25.50	278.70	3,412.3	126.2	-759.0	-759.0	3.41	3.40	
3,629.0	28.40	279.30	3,497.0	133.0	-801.5	-801.5	3.07	3.05	
3,723.0	30.50	278.30	3,578.8	140.1	-847.2	-847.2	2.29	2.23	
3,818.0	29.00	277.40	3,661.3	146.5	-893.9	-893.9	1.65	-1.58	
3,913.0	25.50	280.50	3,745.7	153.2	-936.8	-936.8	3.97	-3.68	
4,007.0	22.50	279.10	3,831.6	159.7	-974.5	-974.5	3.25	-3.19	
4,102.0	20.80	279.10	3,919.9	165.3	-1,009.1	-1,009.1	1.79	-1.79	
4,197.0	18.90	281.90	4,009.3	171.1	-1,040.8	-1,040.8	2.24	-2.00	
4,292.0	16.50	281.00	4,099.8	176.9	-1,069.1	-1,069.1	2.54	-2.53	
4,387.0	15.60	283.10	4,191.1	182.3	-1,094.8	-1,094.8	1.13	-0.95	
4,482.0	14.60	278.50	4,282.8	187.0	-1,119.1	-1,119.1	1.64	-1.05	
4,576.0	11.30	277.90	4,374.4	190.0	-1,139.9	-1,139.9	3.51	-3.51	
4,671.0	9.50	281.70	4,467.8	192.9	-1,156.8	-1,156.8	2.03	-1.89	
4,766.0	9.70	276.30	4,561.5	195.3	-1,172.5	-1,172.5	0.97	0.21	
4,860.0	9.20	267.70	4,654.2	195.9	-1,187.8	-1,187.8	1.59	-0.53	
4,955.0	7.80	272.10	4,748.2	195.8	-1,201.9	-1,201.9	1.62	-1.47	
5,050.0	7.40	279.20	4,842.3	197.1	-1,214.4	-1,214.4	1.07	-0.42	
5,145.0	5.10	271.30	4,936.8	198.1	-1,224.6	-1,224.6	2.58	-2.42	
5,240.0	4.70	274.10	5,031.4	198.5	-1,232.7	-1,232.7	0.49	-0.42	
5,334.0	3.60	270.70	5,125.2	198.8	-1,239.5	-1,239.5	1.20	-1.17	
5,429.0	2.70	267.50	5,220.0	198.8	-1,244.7	-1,244.7	0.96	-0.95	
5,524.0	1.70	261.80	5,315.0	198.5	-1,248.4	-1,248.4	1.08	-1.05	
5,618.0	0.80	273.50	5,408.9	198.3	-1,250.4	-1,250.4	0.99	-0.96	
5,713.0	0.90	283.10	5,503.9	198.5	-1,251.8	-1,251.8	0.18	0.11	
5,808.0	0.80	355.10	5,598.9	199.3	-1,252.6	-1,252.6	1.06	-0.11	
5,903.0	0.30	338.00	5,693.9	200.2	-1,252.7	-1,252.7	0.55	-0.53	
5,949.1	0.35	337.16	5,740.0	200.5	-1,252.8	-1,252.8	0.11	0.11	State Peterson 2C-20H VT
5,997.0	0.40	336.50	5,787.9	200.8	-1,252.9	-1,252.9	0.11	0.11	
6,092.0	0.40	349.90	5,882.9	201.4	-1,253.1	-1,253.1	0.10	0.00	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign 135)
Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign 135)
Well:	State Peterson 2C-20H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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
6,124.0	0.40	336.90	5,914.9	201.6	-1,253.2	-1,253.2	0.28	0.00	
6,156.0	1.90	61.50	5,946.9	202.0	-1,252.8	-1,252.8	5.95	4.69	
6,188.0	5.70	80.00	5,978.8	202.5	-1,250.7	-1,250.7	12.33	11.87	
6,219.0	9.00	85.20	6,009.6	203.0	-1,246.8	-1,246.8	10.85	10.65	
6,251.0	12.10	90.30	6,041.0	203.2	-1,241.0	-1,241.0	10.11	9.69	
6,282.0	14.60	90.00	6,071.2	203.1	-1,233.8	-1,233.8	8.07	8.06	
6,314.0	16.90	90.50	6,102.0	203.1	-1,225.1	-1,225.1	7.20	7.19	
6,345.0	19.00	91.70	6,131.5	202.9	-1,215.6	-1,215.6	6.88	6.77	
6,377.0	21.90	92.30	6,161.4	202.5	-1,204.4	-1,204.4	9.09	9.06	
6,409.0	24.70	91.80	6,190.8	202.1	-1,191.8	-1,191.8	8.77	8.75	
6,440.0	28.00	90.30	6,218.6	201.8	-1,178.0	-1,178.0	10.86	10.65	
6,472.0	30.60	89.30	6,246.5	201.9	-1,162.3	-1,162.3	8.27	8.12	
6,503.0	33.30	89.70	6,272.8	202.0	-1,145.9	-1,145.9	8.74	8.71	
6,535.0	35.90	90.70	6,299.1	202.0	-1,127.8	-1,127.8	8.32	8.12	
6,567.0	38.20	91.10	6,324.7	201.6	-1,108.5	-1,108.5	7.23	7.19	
6,598.0	40.50	89.60	6,348.7	201.5	-1,088.8	-1,088.8	8.03	7.42	
6,630.0	43.10	88.70	6,372.5	201.9	-1,067.5	-1,067.5	8.34	8.12	
6,661.0	45.80	89.10	6,394.6	202.3	-1,045.8	-1,045.8	8.76	8.71	
6,693.0	47.40	89.80	6,416.6	202.5	-1,022.6	-1,022.6	5.25	5.00	
6,725.0	48.70	90.50	6,438.0	202.4	-998.8	-998.8	4.38	4.06	
6,756.0	51.80	91.30	6,457.8	202.1	-974.9	-974.9	10.19	10.00	
6,788.0	55.60	91.20	6,476.8	201.5	-949.2	-949.2	11.88	11.87	
6,819.0	59.60	90.60	6,493.4	201.1	-923.0	-923.0	13.01	12.90	
6,851.0	61.70	90.50	6,509.1	200.8	-895.1	-895.1	6.57	6.56	
6,883.0	64.10	90.30	6,523.6	200.6	-866.6	-866.6	7.52	7.50	
6,914.0	66.90	90.10	6,536.5	200.5	-838.4	-838.4	9.05	9.03	
6,946.0	69.40	89.90	6,548.4	200.5	-808.7	-808.7	7.83	7.81	
6,977.0	70.70	89.90	6,559.0	200.6	-779.6	-779.6	4.19	4.19	
7,009.0	72.90	90.20	6,569.0	200.5	-749.2	-749.2	6.93	6.87	
7,040.0	76.10	90.50	6,577.3	200.4	-719.3	-719.3	10.36	10.32	
7,072.0	78.90	90.60	6,584.2	200.1	-688.1	-688.1	8.76	8.75	
7,104.0	80.90	90.40	6,589.8	199.8	-656.6	-656.6	6.28	6.25	
7,135.0	83.80	90.30	6,593.9	199.6	-625.8	-625.8	9.36	9.35	
7,166.0	87.00	90.10	6,596.4	199.5	-595.0	-595.0	10.34	10.32	
7,258.0	88.20	90.50	6,600.3	199.0	-503.0	-503.0	1.37	1.30	
7,352.0	91.50	90.30	6,600.5	198.4	-409.1	-409.1	3.52	3.51	
7,447.0	91.70	88.80	6,597.9	199.1	-314.1	-314.1	1.59	0.21	
7,542.0	92.50	88.80	6,594.4	201.1	-219.2	-219.2	0.84	0.84	
7,623.4	91.11	88.45	6,591.8	203.0	-137.8	-137.8	1.75	-1.70	7600' MD
7,636.0	90.90	88.40	6,591.6	203.4	-125.3	-125.3	1.75	-1.70	
7,731.0	89.80	89.10	6,591.0	205.5	-30.3	-30.3	1.37	-1.16	
7,826.0	90.50	89.30	6,590.8	206.8	64.7	64.7	0.77	0.74	
7,921.0	89.80	89.90	6,590.5	207.4	159.7	159.7	0.97	-0.74	
8,016.0	90.20	91.00	6,590.5	206.7	254.7	254.7	1.23	0.42	
8,110.0	90.30	90.20	6,590.1	205.7	348.7	348.7	0.86	0.11	
8,123.6	90.49	90.23	6,590.0	205.7	362.3	362.3	1.38	1.37	8100' MD
8,205.0	91.60	90.40	6,588.5	205.2	443.7	443.7	1.38	1.37	
8,300.0	91.30	89.00	6,586.1	205.7	538.6	538.6	1.51	-0.32	
8,395.0	91.20	89.20	6,584.0	207.2	633.6	633.6	0.24	-0.11	
8,489.0	91.60	91.50	6,581.8	206.6	727.6	727.6	2.48	0.43	
8,584.0	91.60	90.80	6,579.1	204.7	822.5	822.5	0.74	0.00	
8,679.0	91.50	90.20	6,576.5	203.9	917.5	917.5	0.64	-0.11	
8,773.0	91.20	89.30	6,574.3	204.3	1,011.4	1,011.4	1.01	-0.32	

Cathedral Energy Services

Survey Report

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Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign 135)
Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign 135)
Well:	State Peterson 2C-20H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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
8,868.0	90.90	89.50	6,572.6	205.3	1,106.4	1,106.4	0.38	-0.32	
8,963.0	90.50	90.40	6,571.4	205.4	1,201.4	1,201.4	1.04	-0.42	
9,023.9	90.76	90.08	6,570.7	205.1	1,262.4	1,262.4	0.67	0.42	9000' MD
9,058.0	90.90	89.90	6,570.3	205.1	1,296.4	1,296.4	0.67	0.42	
9,153.0	90.50	90.40	6,569.1	204.9	1,391.4	1,391.4	0.67	-0.42	
9,248.0	91.10	90.60	6,567.8	204.1	1,486.4	1,486.4	0.67	0.63	
9,342.0	90.30	89.20	6,566.6	204.2	1,580.4	1,580.4	1.72	-0.85	
9,437.0	90.50	89.40	6,566.0	205.4	1,675.4	1,675.4	0.30	0.21	
9,532.0	92.20	90.90	6,563.7	205.1	1,770.3	1,770.3	2.39	1.79	
9,627.0	90.00	90.50	6,561.9	204.0	1,865.3	1,865.3	2.35	-2.32	
9,721.0	88.30	89.90	6,563.3	203.6	1,959.3	1,959.3	1.92	-1.81	
9,816.0	89.10	90.00	6,565.4	203.7	2,054.3	2,054.3	0.85	0.84	
9,911.0	90.70	90.60	6,565.6	203.2	2,149.3	2,149.3	1.80	1.68	
10,005.0	91.40	91.00	6,563.9	201.9	2,243.2	2,243.2	0.86	0.74	
10,024.2	91.30	90.78	6,563.4	201.6	2,262.5	2,262.5	1.27	-0.53	10000' MD
10,100.0	90.90	89.90	6,562.0	201.2	2,338.2	2,338.2	1.27	-0.53	
10,195.0	89.10	88.30	6,562.0	202.7	2,433.2	2,433.2	2.54	-1.89	
10,290.0	89.10	88.90	6,563.5	205.0	2,528.2	2,528.2	0.63	0.00	
10,384.0	89.50	89.40	6,564.6	206.4	2,622.1	2,622.1	0.68	0.43	
10,479.0	88.90	89.70	6,565.9	207.1	2,717.1	2,717.1	0.71	-0.63	
10,573.0	90.10	89.60	6,566.8	207.7	2,811.1	2,811.1	1.28	1.28	
10,668.0	90.20	91.00	6,566.5	207.2	2,906.1	2,906.1	1.48	0.11	
10,763.0	91.00	91.00	6,565.5	205.5	3,001.1	3,001.1	0.84	0.84	
10,857.0	91.20	91.10	6,563.7	203.8	3,095.1	3,095.1	0.24	0.21	
10,952.0	91.00	90.50	6,561.9	202.5	3,190.1	3,190.1	0.67	-0.21	
11,024.3	90.77	90.04	6,560.8	202.2	3,262.3	3,262.3	0.71	-0.32	11,000' MD
11,046.0	90.70	89.90	6,560.5	202.2	3,284.0	3,284.0	0.71	-0.32	
11,141.0	88.90	88.80	6,560.8	203.2	3,379.0	3,379.0	2.22	-1.89	
11,236.0	90.30	89.20	6,561.5	204.9	3,474.0	3,474.0	1.53	1.47	
11,342.0	90.50	88.40	6,560.8	207.1	3,580.0	3,580.0	0.78	0.19	Last Cathedral Survey @ 11,342' MD
11,392.0	90.50	88.40	6,560.3	208.5	3,629.9	3,629.9	0.00	0.00	Projection to Bit @ 11,392' MD - BHL TGT 3.29

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2C-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign 135)
Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign 135)
Well:	State Peterson 2C-20H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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									
State Peterson 2C-20H I	0.00	0.00	6,619.0	189.7	3,637.9	1,386,261.84	3,291,851.01	40.388950	-104.452270
- actual wellpath misses target center by 62.1ft at 11392.0ft MD (6560.3 TVD, 208.5 N, 3629.9 E)									
- Point									
BHL TGT 3.29	0.00	0.00	6,573.0	189.7	3,637.9	1,386,261.84	3,291,850.97	40.388950	-104.452270
- actual wellpath misses target center by 24.0ft at 11392.0ft MD (6560.3 TVD, 208.5 N, 3629.9 E)									
- Point									
11,000' MD	0.00	0.00	6,567.0	190.9	3,262.4	1,386,258.61	3,291,475.44	40.388953	-104.453618
- actual wellpath misses target center by 12.9ft at 11024.3ft MD (6560.8 TVD, 202.2 N, 3262.3 E)									
- Point									
8100' MD	0.00	0.00	6,594.0	199.8	362.4	1,386,233.66	3,288,575.54	40.388978	-104.464029
- actual wellpath misses target center by 7.1ft at 8123.6ft MD (6590.0 TVD, 205.7 N, 362.3 E)									
- Point									
State Peterson 2C-20H I	0.00	0.00	6,640.0	189.7	3,637.9	1,386,261.84	3,291,851.01	40.388950	-104.452270
- actual wellpath misses target center by 82.3ft at 11392.0ft MD (6560.3 TVD, 208.5 N, 3629.9 E)									
- Point									
7600' MD	0.00	0.00	6,597.0	201.3	-137.6	1,386,229.36	3,288,075.56	40.388982	-104.465824
- actual wellpath misses target center by 5.5ft at 7623.5ft MD (6591.8 TVD, 203.0 N, -137.8 E)									
- Point									
10000' MD	0.00	0.00	6,561.0	193.9	2,262.4	1,386,250.01	3,290,475.47	40.388962	-104.457208
- actual wellpath misses target center by 8.1ft at 10024.2ft MD (6563.4 TVD, 201.6 N, 2262.5 E)									
- Point									
State Peterson 2C-20H '	0.00	0.00	5,740.0	204.7	-1,250.0	1,386,219.79	3,286,963.22	40.388992	-104.469817
- actual wellpath misses target center by 5.1ft at 5949.1ft MD (5740.0 TVD, 200.5 N, -1252.8 E)									
- Point									
9000' MD	0.00	0.00	6,574.0	197.0	1,262.4	1,386,241.40	3,289,475.51	40.388971	-104.460798
- actual wellpath misses target center by 8.8ft at 9023.9ft MD (6570.7 TVD, 205.1 N, 1262.4 E)									
- Point									

Design Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
11,342.0	6,560.8	207.1	3,580.0	Last Cathedral Survey @ 11,342' MD
11,392.0	6,560.3	208.5	3,629.9	Projection to Bit @ 11,392' MD

Checked By: _____ Approved By: _____ Date: _____