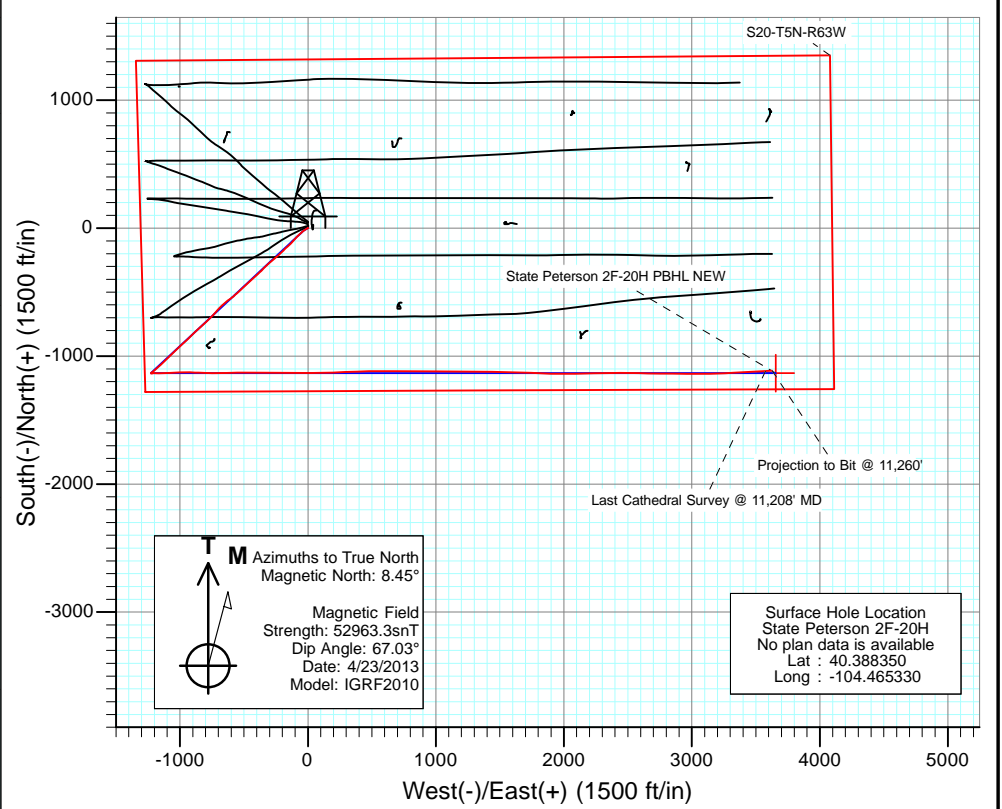
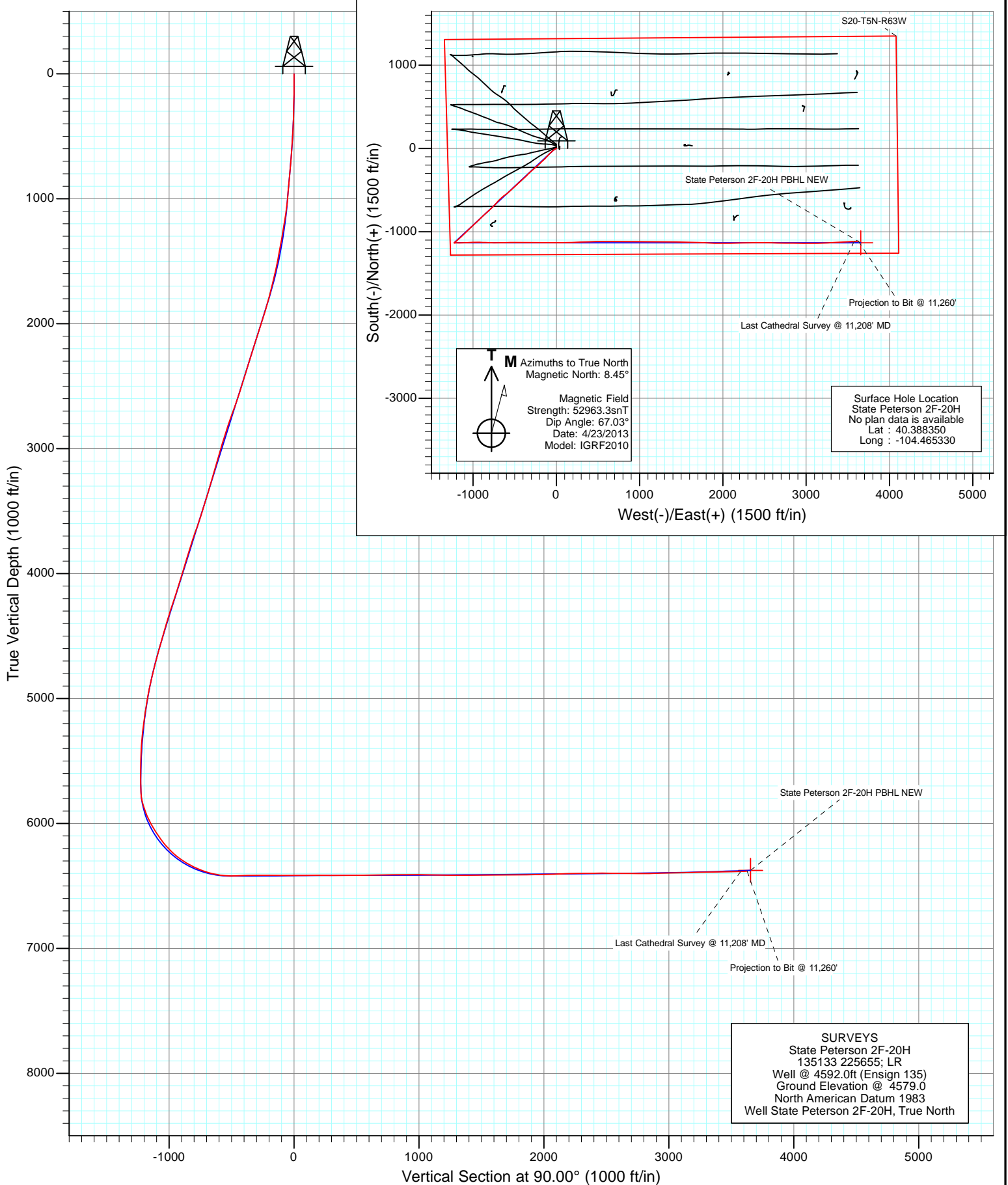


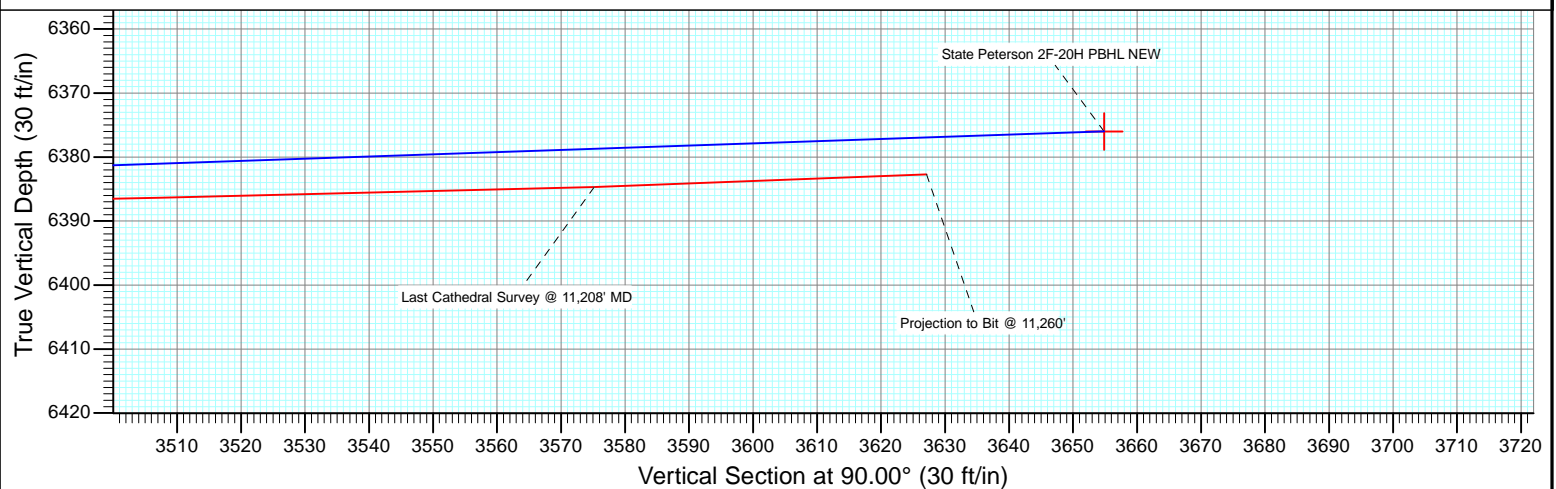
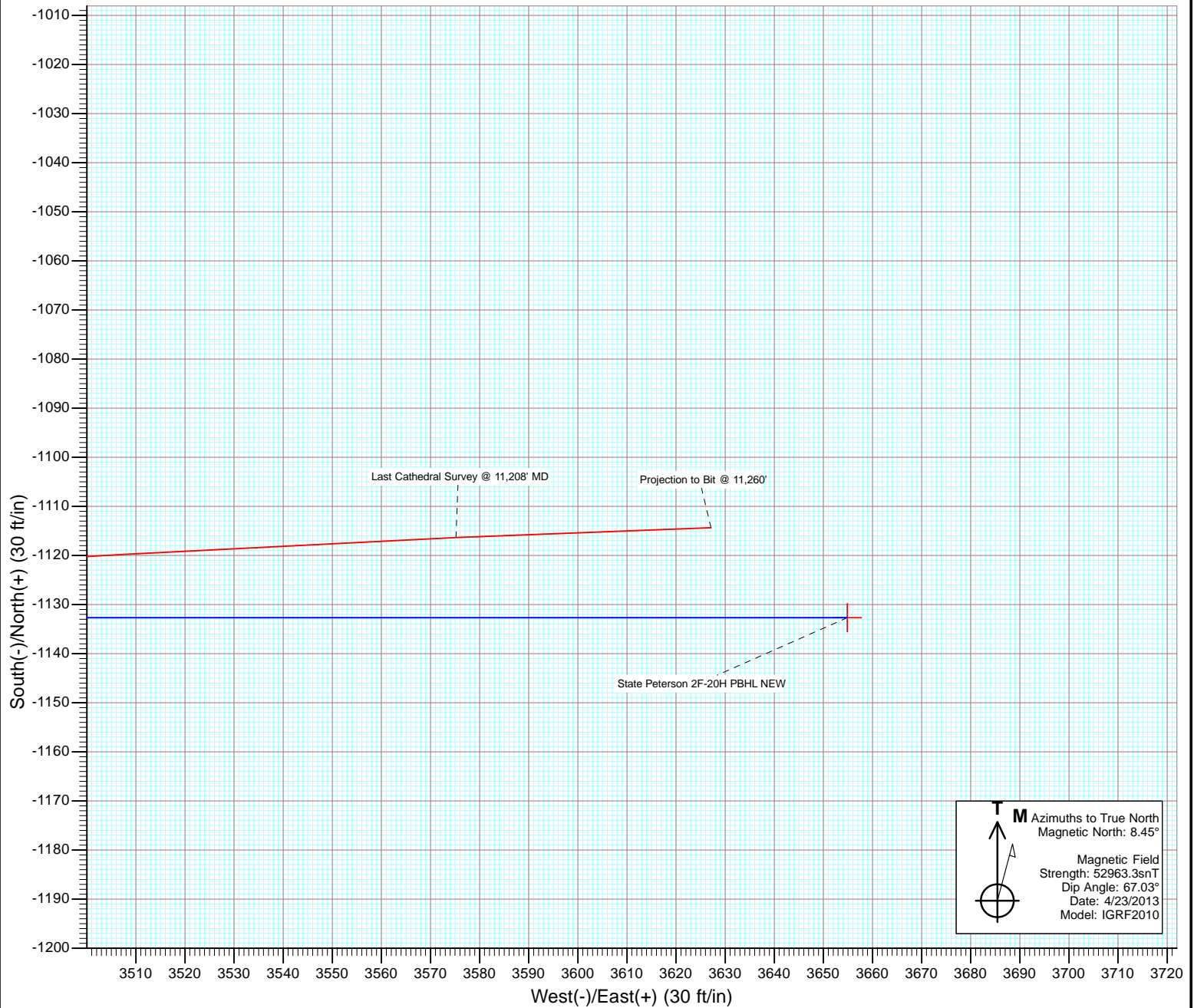


Project: DJ Wattenberg
Site: S20-T5N-R63W (State Peterson)
Well: State Peterson 2F-20H
Wellbore: Hz
Design: FINAL





Project: DJ Wattenberg
Site: S20-T5N-R63W (State Peterson)
Wellbore: Hz
Design: FINAL



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2F-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 2F-20H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	SURVEYS	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 2F-20H					
Well Position	+N/-S	0.0 ft	Northing:	1,386,000.55 ft	Latitude:	40.388350
	+E/-W	0.0 ft	Easting:	3,288,215.87 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	4/23/2013	8.45	67.03	52,963

Design	SURVEYS				
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	4/30/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
136.0	11,260.0	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	
136.0	0.30	167.70	136.0	-0.3	0.1	0.1	0.22	0.22	
167.0	0.40	239.10	167.0	-0.5	0.0	0.0	1.34	0.32	
259.0	1.10	254.30	259.0	-0.9	-1.1	-1.1	0.78	0.76	
350.0	2.20	243.90	350.0	-1.9	-3.5	-3.5	1.25	1.21	
442.0	3.30	240.00	441.8	-4.0	-7.4	-7.4	1.21	1.20	
534.0	4.10	237.20	533.7	-7.1	-12.5	-12.5	0.89	0.87	
626.0	5.10	238.60	625.4	-11.0	-18.7	-18.7	1.09	1.09	
718.0	6.10	237.90	716.9	-15.7	-26.4	-26.4	1.09	1.09	
810.0	6.40	233.30	808.4	-21.4	-34.6	-34.6	0.63	0.33	
902.0	6.50	226.90	899.8	-28.0	-42.5	-42.5	0.79	0.11	
932.0	6.60	227.50	929.6	-30.3	-45.0	-45.0	0.40	0.33	
976.0	6.70	227.10	973.3	-33.8	-48.8	-48.8	0.25	0.23	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2F-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 2F-20H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	SURVEYS	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
1,007.0	6.80	226.90	1,004.1	-36.3	-51.4	-51.4	0.33	0.32	
1,099.0	10.50	228.90	1,095.0	-45.5	-61.7	-61.7	4.03	4.02	
1,191.0	13.10	224.20	1,185.1	-58.5	-75.3	-75.3	3.01	2.83	
1,283.0	13.90	222.30	1,274.5	-74.2	-90.0	-90.0	0.99	0.87	
1,375.0	15.60	222.30	1,363.5	-91.5	-105.8	-105.8	1.85	1.85	
1,467.0	15.10	223.80	1,452.2	-109.3	-122.4	-122.4	0.69	-0.54	
1,559.0	15.60	226.50	1,540.9	-126.4	-139.7	-139.7	0.95	0.54	
1,651.0	17.50	228.90	1,629.1	-144.1	-159.1	-159.1	2.19	2.07	
1,743.0	19.30	225.50	1,716.4	-163.8	-180.4	-180.4	2.28	1.96	
1,835.0	20.80	224.10	1,802.8	-186.2	-202.6	-202.6	1.71	1.63	
1,927.0	21.60	228.80	1,888.6	-209.1	-226.7	-226.7	2.04	0.87	
2,021.0	22.90	231.30	1,975.6	-231.9	-254.0	-254.0	1.71	1.38	
2,116.0	23.60	228.80	2,062.9	-256.0	-282.7	-282.7	1.27	0.74	
2,211.0	23.30	227.30	2,150.1	-281.3	-310.8	-310.8	0.70	-0.32	
2,305.0	23.60	225.50	2,236.3	-307.1	-337.9	-337.9	0.83	0.32	
2,400.0	22.70	224.80	2,323.6	-333.4	-364.4	-364.4	0.99	-0.95	
2,495.0	22.50	227.40	2,411.3	-358.7	-390.7	-390.7	1.07	-0.21	
2,589.0	22.90	229.30	2,498.1	-382.8	-417.8	-417.8	0.89	0.43	
2,684.0	24.50	226.20	2,585.1	-408.5	-446.0	-446.0	2.13	1.68	
2,778.0	26.50	226.90	2,669.9	-436.3	-475.4	-475.4	2.15	2.13	
2,873.0	25.90	226.10	2,755.1	-465.2	-505.8	-505.8	0.73	-0.63	
2,968.0	24.80	229.20	2,841.0	-492.6	-535.9	-535.9	1.81	-1.16	
3,062.0	22.20	227.80	2,927.2	-517.4	-564.0	-564.0	2.83	-2.77	
3,157.0	19.50	231.80	3,016.0	-539.3	-589.7	-589.7	3.21	-2.84	
3,252.0	20.60	234.90	3,105.2	-558.7	-615.8	-615.8	1.61	1.16	
3,346.0	19.90	229.70	3,193.4	-578.6	-641.6	-641.6	2.05	-0.74	
3,441.0	20.90	228.90	3,282.4	-600.2	-666.7	-666.7	1.09	1.05	
3,535.0	24.50	223.00	3,369.2	-625.4	-692.6	-692.6	4.53	3.83	
3,630.0	25.00	220.90	3,455.4	-655.0	-719.2	-719.2	1.06	0.53	
3,725.0	25.20	222.20	3,541.5	-685.2	-745.9	-745.9	0.62	0.21	
3,819.0	26.10	227.90	3,626.2	-713.9	-774.7	-774.7	2.79	0.96	
3,914.0	24.50	228.20	3,712.1	-741.0	-804.9	-804.9	1.69	-1.68	
4,009.0	22.80	227.40	3,799.1	-766.6	-833.1	-833.1	1.82	-1.79	
4,104.0	22.50	227.00	3,886.8	-791.5	-860.0	-860.0	0.35	-0.32	
4,198.0	22.80	225.50	3,973.5	-816.5	-886.1	-886.1	0.69	0.32	
4,293.0	23.50	225.00	4,060.9	-842.8	-912.7	-912.7	0.77	0.74	
4,388.0	23.10	227.00	4,148.1	-868.9	-939.7	-939.7	0.93	-0.42	
4,483.0	24.40	229.20	4,235.1	-894.4	-968.2	-968.2	1.66	1.37	
4,577.0	22.40	226.70	4,321.4	-919.4	-995.9	-995.9	2.37	-2.13	
4,672.0	23.10	224.30	4,409.0	-945.1	-1,022.1	-1,022.1	1.22	0.74	
4,767.0	22.50	227.70	4,496.6	-970.7	-1,048.6	-1,048.6	1.52	-0.63	
4,862.0	20.30	226.30	4,585.0	-994.3	-1,073.9	-1,073.9	2.38	-2.32	
4,957.0	20.40	226.10	4,674.1	-1,017.2	-1,097.8	-1,097.8	0.13	0.11	
5,051.0	19.40	224.50	4,762.5	-1,039.7	-1,120.5	-1,120.5	1.21	-1.06	
5,146.0	17.60	227.20	4,852.5	-1,060.7	-1,142.1	-1,142.1	2.10	-1.89	
5,241.0	14.50	230.50	4,943.8	-1,078.0	-1,161.8	-1,161.8	3.40	-3.26	
5,336.0	12.70	227.40	5,036.2	-1,092.7	-1,178.7	-1,178.7	2.04	-1.89	
5,430.0	10.90	226.30	5,128.2	-1,105.8	-1,192.7	-1,192.7	1.93	-1.91	
5,525.0	9.50	229.90	5,221.7	-1,117.1	-1,205.2	-1,205.2	1.62	-1.47	
5,620.0	6.70	229.50	5,315.7	-1,125.7	-1,215.4	-1,215.4	2.95	-2.95	
5,715.0	4.00	240.70	5,410.3	-1,130.9	-1,222.5	-1,222.5	3.03	-2.84	
5,809.0	0.70	187.20	5,504.2	-1,133.1	-1,225.5	-1,225.5	3.86	-3.51	
5,904.0	0.80	166.50	5,599.2	-1,134.3	-1,225.4	-1,225.4	0.30	0.11	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2F-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 2F-20H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	SURVEYS	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
5,999.0	0.50	165.30	5,694.2	-1,135.4	-1,225.1	-1,225.1	0.32	-0.32	
6,031.0	0.50	173.30	5,726.2	-1,135.7	-1,225.1	-1,225.1	0.22	0.00	
6,062.0	2.60	86.80	5,757.2	-1,135.8	-1,224.4	-1,224.4	8.44	6.77	
6,094.0	7.90	84.20	5,789.0	-1,135.5	-1,221.4	-1,221.4	16.57	16.56	
6,125.0	12.80	82.90	5,819.5	-1,134.9	-1,215.9	-1,215.9	15.82	15.81	
6,157.0	16.90	84.40	5,850.4	-1,134.0	-1,207.8	-1,207.8	12.87	12.81	
6,189.0	19.60	87.40	5,880.8	-1,133.3	-1,197.8	-1,197.8	8.93	8.44	
6,220.0	20.50	89.60	5,910.0	-1,133.0	-1,187.1	-1,187.1	3.79	2.90	
6,252.0	22.60	89.40	5,939.7	-1,132.9	-1,175.4	-1,175.4	6.57	6.56	
6,284.0	25.80	90.90	5,968.9	-1,132.9	-1,162.3	-1,162.3	10.18	10.00	
6,315.0	29.00	91.60	5,996.4	-1,133.2	-1,148.0	-1,148.0	10.37	10.32	
6,347.0	30.40	91.50	6,024.2	-1,133.7	-1,132.2	-1,132.2	4.38	4.37	
6,378.0	31.90	90.60	6,050.7	-1,134.0	-1,116.1	-1,116.1	5.07	4.84	
6,410.0	32.50	87.90	6,077.8	-1,133.7	-1,099.1	-1,099.1	4.87	1.87	
6,442.0	33.80	85.50	6,104.6	-1,132.7	-1,081.6	-1,081.6	5.77	4.06	
6,473.0	36.20	85.70	6,130.0	-1,131.4	-1,063.9	-1,063.9	7.75	7.74	
6,505.0	38.80	86.50	6,155.4	-1,130.0	-1,044.5	-1,044.5	8.27	8.12	
6,536.0	41.70	85.90	6,179.1	-1,128.7	-1,024.5	-1,024.5	9.44	9.35	
6,568.0	43.60	86.00	6,202.6	-1,127.2	-1,002.9	-1,002.9	5.94	5.94	
6,600.0	45.90	88.10	6,225.3	-1,126.0	-980.4	-980.4	8.54	7.19	
6,631.0	48.60	89.80	6,246.4	-1,125.6	-957.6	-957.6	9.59	8.71	
6,663.0	51.80	92.20	6,266.8	-1,126.1	-933.0	-933.0	11.54	10.00	
6,694.0	54.70	92.00	6,285.4	-1,127.0	-908.2	-908.2	9.37	9.35	
6,726.0	56.90	92.70	6,303.4	-1,128.1	-881.8	-881.8	7.11	6.87	
6,758.0	59.70	92.90	6,320.2	-1,129.4	-854.6	-854.6	8.77	8.75	
6,789.0	62.20	93.00	6,335.2	-1,130.8	-827.5	-827.5	8.07	8.06	
6,821.0	64.80	92.00	6,349.5	-1,132.0	-798.9	-798.9	8.59	8.12	
6,852.0	66.90	91.20	6,362.2	-1,132.8	-770.6	-770.6	7.17	6.77	
6,884.0	69.00	90.30	6,374.2	-1,133.2	-741.0	-741.0	7.06	6.56	
6,916.0	70.50	89.10	6,385.3	-1,133.0	-711.0	-711.0	5.86	4.69	
6,947.0	73.30	89.00	6,394.9	-1,132.6	-681.5	-681.5	9.04	9.03	
6,979.0	77.30	88.80	6,403.0	-1,132.0	-650.6	-650.6	12.51	12.50	
7,010.0	80.60	88.10	6,409.0	-1,131.1	-620.1	-620.1	10.87	10.65	
7,042.0	81.30	87.40	6,414.0	-1,129.9	-588.6	-588.6	3.07	2.19	
7,080.0	85.30	88.60	6,418.4	-1,128.6	-550.9	-550.9	10.98	10.53	
7,130.0	91.00	90.30	6,420.1	-1,128.1	-500.9	-500.9	11.90	11.40	
7,162.0	92.10	90.30	6,419.2	-1,128.3	-468.9	-468.9	3.44	3.44	
7,256.0	90.60	90.00	6,417.0	-1,128.5	-375.0	-375.0	1.63	-1.60	
7,351.0	91.30	92.20	6,415.4	-1,130.3	-280.0	-280.0	2.43	0.74	
7,445.0	89.10	90.20	6,415.1	-1,132.3	-186.0	-186.0	3.16	-2.34	
7,540.0	89.60	89.70	6,416.1	-1,132.2	-91.0	-91.0	0.74	0.53	
7,635.0	89.80	89.10	6,416.6	-1,131.2	4.0	4.0	0.67	0.21	
7,730.0	90.90	89.30	6,416.1	-1,129.9	99.0	99.0	1.18	1.16	
7,825.0	91.20	88.80	6,414.3	-1,128.3	193.9	193.9	0.61	0.32	
7,920.0	88.60	87.10	6,414.5	-1,124.9	288.9	288.9	3.27	-2.74	
8,014.0	89.10	88.00	6,416.4	-1,120.9	382.7	382.7	1.10	0.53	
8,109.0	90.80	88.90	6,416.5	-1,118.3	477.7	477.7	2.02	1.79	
8,204.0	91.40	90.30	6,414.6	-1,117.7	572.7	572.7	1.60	0.63	
8,299.0	89.80	91.00	6,413.6	-1,118.8	667.7	667.7	1.84	-1.68	
8,393.0	91.30	89.20	6,412.7	-1,118.9	761.7	761.7	2.49	1.60	
8,488.0	90.90	89.90	6,410.9	-1,118.2	856.6	856.6	0.85	-0.42	
8,583.0	89.90	90.90	6,410.3	-1,118.8	951.6	951.6	1.49	-1.05	
8,677.0	88.60	90.50	6,411.5	-1,120.0	1,045.6	1,045.6	1.45	-1.38	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2F-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 2F-20H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	SURVEYS	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
8,772.0	88.90	90.00	6,413.6	-1,120.4	1,140.6	1,140.6	0.61	0.32	
8,867.0	89.50	91.10	6,414.9	-1,121.3	1,235.6	1,235.6	1.32	0.63	
8,962.0	90.20	90.60	6,415.1	-1,122.7	1,330.6	1,330.6	0.91	0.74	
9,057.0	90.10	89.80	6,414.9	-1,123.1	1,425.6	1,425.6	0.85	-0.11	
9,151.0	90.40	90.90	6,414.5	-1,123.6	1,519.6	1,519.6	1.21	0.32	
9,246.0	90.70	92.00	6,413.6	-1,126.0	1,614.5	1,614.5	1.20	0.32	
9,341.0	90.60	92.30	6,412.5	-1,129.6	1,709.4	1,709.4	0.33	-0.11	
9,436.0	90.70	92.80	6,411.4	-1,133.8	1,804.3	1,804.3	0.54	0.11	
9,530.0	90.10	91.30	6,410.7	-1,137.2	1,898.3	1,898.3	1.72	-0.64	
9,625.0	91.10	89.80	6,409.8	-1,138.1	1,993.3	1,993.3	1.90	1.05	
9,720.0	92.50	89.50	6,406.8	-1,137.5	2,088.2	2,088.2	1.51	1.47	
9,815.0	92.10	88.60	6,403.0	-1,135.9	2,183.1	2,183.1	1.04	-0.42	
9,909.0	90.70	87.60	6,400.7	-1,132.8	2,277.0	2,277.0	1.83	-1.49	
10,004.0	91.30	90.00	6,399.0	-1,130.8	2,372.0	2,372.0	2.60	0.63	
10,099.0	89.60	91.00	6,398.3	-1,131.7	2,467.0	2,467.0	2.08	-1.79	
10,194.0	89.40	90.90	6,399.1	-1,133.2	2,562.0	2,562.0	0.24	-0.21	
10,288.0	89.10	90.80	6,400.3	-1,134.6	2,656.0	2,656.0	0.34	-0.32	
10,383.0	89.50	90.30	6,401.5	-1,135.5	2,750.9	2,750.9	0.67	0.42	
10,477.0	90.60	90.30	6,401.4	-1,136.0	2,844.9	2,844.9	1.17	1.17	
10,572.0	92.30	92.00	6,399.0	-1,137.9	2,939.9	2,939.9	2.53	1.79	
10,667.0	91.10	89.10	6,396.2	-1,138.9	3,034.8	3,034.8	3.30	-1.26	
10,761.0	91.40	88.90	6,394.1	-1,137.2	3,128.8	3,128.8	0.38	0.32	
10,856.0	91.60	87.90	6,391.6	-1,134.6	3,223.7	3,223.7	1.07	0.21	
10,950.0	90.80	86.90	6,389.7	-1,130.3	3,317.6	3,317.6	1.36	-0.85	
11,045.0	91.20	86.90	6,388.0	-1,125.2	3,412.4	3,412.4	0.42	0.42	
11,140.0	90.80	86.60	6,386.3	-1,119.8	3,507.3	3,507.3	0.53	-0.42	
11,208.0	92.00	87.60	6,384.7	-1,116.3	3,575.2	3,575.2	2.30	1.76	Last Cathedral Survey @ 11,208' MD Projection to Bit @ 11,260'
11,260.0	92.40	88.00	6,382.7	-1,114.3	3,627.1	3,627.1	1.09	0.77	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2F-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 2F-20H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	SURVEYS	Database:	USA EDM 5000 Multi Users DB

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
State Peterson 2F-20H 1 - actual wellpath misses target center by 7.7ft at 9486.9ft MD (6410.9 TVD, -1136.0 N, 1855.2 E) - Point	0.00	0.00	6,404.0	-1,132.7	1,855.3	1,384,889.59	3,290,084.27	40.385241	-104.458670
State Peterson 2F-20H 1 - actual wellpath misses target center by 5.4ft at 10987.4ft MD (6389.1 TVD, -1128.3 N, 3355.0 E) - Point	0.00	0.00	6,386.0	-1,132.7	3,355.1	1,384,907.09	3,291,583.99	40.385240	-104.453286
State Peterson 2F-20H 1 - actual wellpath misses target center by 2.7ft at 7686.6ft MD (6416.6 TVD, -1130.5 N, 55.6 E) - Point	0.00	0.00	6,415.0	-1,132.7	55.6	1,384,868.60	3,288,284.66	40.385241	-104.465130
State Peterson 2F-20H 1 - actual wellpath misses target center by 6.7ft at 7286.5ft MD (6416.6 TVD, -1128.7 N, -344.4 E) - Point	0.00	0.00	6,422.0	-1,132.7	-344.4	1,384,863.93	3,287,884.68	40.385241	-104.466566
State Peterson 2F-20H 1 - actual wellpath misses target center by 4.7ft at 10487.3ft MD (6401.3 TVD, -1136.1 N, 2855.3 E) - Point	0.00	0.00	6,398.0	-1,132.7	2,855.3	1,384,901.26	3,291,084.15	40.385240	-104.455080
State Peterson 2F-20H 1 - actual wellpath misses target center by 2.9ft at 6010.6ft MD (5705.8 TVD, -1135.5 N, -1225.1 E) - Point	0.00	0.00	5,705.8	-1,132.7	-1,226.0	1,384,853.64	3,287,003.17	40.385241	-104.469731
State Peterson 2F-20H 1 - actual wellpath misses target center by 15.1ft at 8486.6ft MD (6410.9 TVD, -1118.2 N, 855.2 E) - Point	0.00	0.00	6,415.0	-1,132.7	855.4	1,384,877.93	3,289,084.45	40.385241	-104.462259
State Peterson 2F-20H 1 - actual wellpath misses target center by 4.4ft at 7486.7ft MD (6415.6 TVD, -1132.4 N, -144.4 E) - Point	0.00	0.00	6,420.0	-1,132.7	-144.4	1,384,866.26	3,288,084.67	40.385241	-104.465848
State Peterson 2F-20H 1 - actual wellpath misses target center by 10.2ft at 8986.9ft MD (6415.0 TVD, -1122.9 N, 1355.4 E) - Point	0.00	0.00	6,412.0	-1,132.7	1,355.4	1,384,883.76	3,289,584.40	40.385241	-104.460464
State Peterson 2F-20H 1 - actual wellpath misses target center by 1.9ft at 9987.2ft MD (6399.4 TVD, -1130.9 N, 2355.2 E) - Point	0.00	0.00	6,400.0	-1,132.7	2,355.3	1,384,895.43	3,290,584.20	40.385240	-104.456875
State Peterson 2F-20H f - actual wellpath misses target center by 799.0ft at 11256.4ft MD (6382.8 TVD, -1114.5 N, 3623.5 E) - Point	0.00	0.00	7,181.0	-1,132.7	3,654.9	1,384,910.59	3,291,883.69	40.385240	-104.452210
State Peterson 2F-20H 1 - actual wellpath misses target center by 10.8ft at 7986.2ft MD (6415.9 TVD, -1121.9 N, 355.0 E) - Point	0.00	0.00	6,415.0	-1,132.7	355.4	1,384,872.09	3,288,584.50	40.385241	-104.464054
State Peterson 2F-20H f - actual wellpath misses target center by 33.9ft at 11260.0ft MD (6382.7 TVD, -1114.3 N, 3627.1 E) - Point	0.00	0.00	6,376.0	-1,132.7	3,654.9	1,384,910.59	3,291,883.69	40.385240	-104.452210

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
11,208.0	6,384.7	-1,116.3	3,575.2	Last Cathedral Survey @ 11,208' MD
11,260.0	6,382.7	-1,114.3	3,627.1	Projection to Bit @ 11,260'

Checked By: _____ Approved By: _____ Date: _____