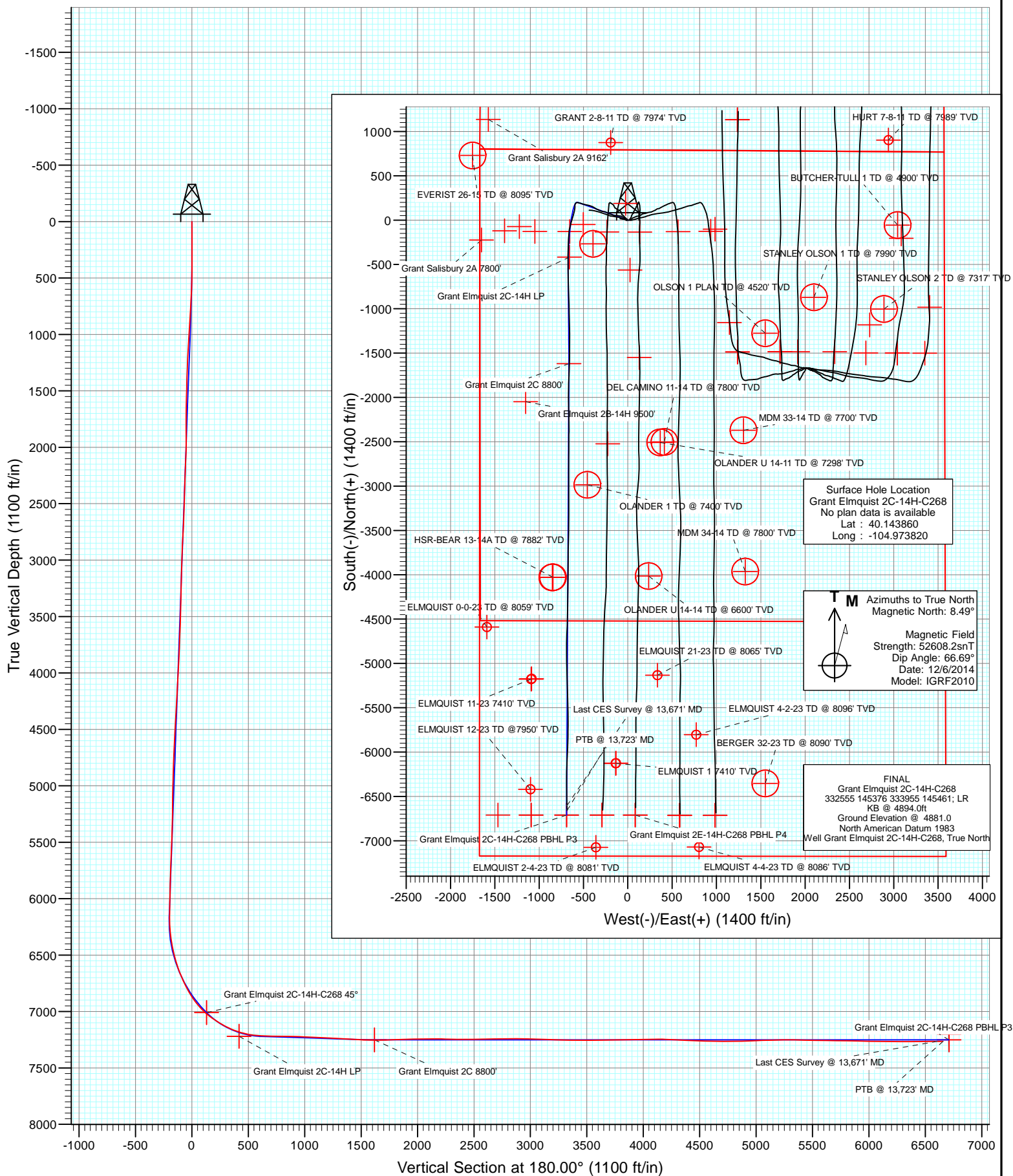




Project: DJ Wattenberg
 Site: S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)
 Well: Grant Elmquist 2C-14H-C268
 Wellbore: Hz
 Design: FINAL



Survey Report

Company: EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference: Well Grant Elmquist 2C-14H-C268
Project: DJ Wattenberg	TVD Reference: KB @ 4894.0ft
Site: S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference: KB @ 4894.0ft
Well: Grant Elmquist 2C-14H-C268	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 S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)				
Site Position:	Northing: 1,295,686.81 ft	Latitude: 40.143850		
From: Lat/Long	Easting: 3,147,060.98 ft	Longitude: -104.973980		
Position Uncertainty: 0.0 ft	Slot Radius: 13.200 in	Grid Convergence: 0.34 °		

Well Grant Elmquist 2C-14H-C268				
Well Position	+N/-S 0.0 ft	Northing: 1,295,690.70 ft	Latitude: 40.143860	
	+E/-W 0.0 ft	Easting: 3,147,105.69 ft	Longitude: -104.973820	
Position Uncertainty	0.0 ft	Wellhead Elevation: ft	Ground Level: 4,881.0 ft	

Wellbore Hz					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/6/2014	8.49	66.69	52,608

Design FINAL				
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	180.00

Survey Program		Date 12/18/2014
From (ft)	To (ft)	Survey (Wellbore)
143.0	13,723.0	SURVEYS (Hz)
		Tool Name Geolink MWD
		Description Geolink MWD

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	
143.0	0.40	219.50	143.0	-0.4	-0.3	0.4	0.28	0.28	
234.0	0.40	244.70	234.0	-0.8	-0.8	0.8	0.19	0.00	
325.0	0.40	271.60	325.0	-0.9	-1.4	0.9	0.20	0.00	
417.0	0.60	261.80	417.0	-1.0	-2.2	1.0	0.24	0.22	
509.0	2.20	305.50	509.0	0.0	-4.1	0.0	1.97	1.74	
601.0	4.50	308.20	600.8	3.3	-8.4	-3.3	2.51	2.50	
693.0	5.90	301.10	692.4	7.9	-15.3	-7.9	1.67	1.52	
785.0	5.80	301.20	783.9	12.8	-23.3	-12.8	0.11	-0.11	
821.0	5.80	300.00	819.8	14.6	-26.4	-14.6	0.34	0.00	
927.0	5.90	305.60	925.2	20.5	-35.5	-20.5	0.55	0.09	
1,021.0	6.10	305.10	1,018.7	26.2	-43.5	-26.2	0.22	0.21	
1,116.0	5.80	306.00	1,113.2	31.9	-51.5	-31.9	0.33	-0.32	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Elmquist 2C-14H-C268
Project:	DJ Wattenberg	TVD Reference:	KB @ 4894.0ft
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	KB @ 4894.0ft
Well:	Grant Elmquist 2C-14H-C268	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
1,211.0	6.20	300.30	1,207.7	37.3	-59.8	-37.3	0.75	0.42	
1,302.0	6.90	287.30	1,298.1	41.4	-69.3	-41.4	1.80	0.77	
1,394.0	6.80	284.30	1,389.4	44.4	-79.9	-44.4	0.40	-0.11	
1,485.0	6.60	282.60	1,479.8	46.9	-90.2	-46.9	0.31	-0.22	
1,577.0	6.60	279.00	1,571.2	48.9	-100.6	-48.9	0.45	0.00	
1,669.0	6.70	277.60	1,662.6	50.4	-111.1	-50.4	0.21	0.11	
1,760.0	6.70	273.90	1,752.9	51.5	-121.7	-51.5	0.47	0.00	
1,852.0	6.50	269.30	1,844.3	51.8	-132.2	-51.8	0.61	-0.22	
1,944.0	6.30	265.00	1,935.8	51.2	-142.5	-51.2	0.56	-0.22	
2,036.0	6.50	280.70	2,027.2	51.8	-152.6	-51.8	1.91	0.22	
2,128.0	6.30	296.30	2,118.6	55.0	-162.3	-55.0	1.90	-0.22	
2,219.0	6.20	291.10	2,209.1	59.0	-171.3	-59.0	0.63	-0.11	
2,311.0	6.00	286.90	2,300.6	62.1	-180.6	-62.1	0.53	-0.22	
2,403.0	5.80	284.10	2,392.1	64.7	-189.7	-64.7	0.38	-0.22	
2,494.0	6.00	291.90	2,482.6	67.6	-198.5	-67.6	0.91	0.22	
2,585.0	6.00	287.60	2,573.1	70.8	-207.5	-70.8	0.49	0.00	
2,677.0	5.60	296.70	2,664.6	74.3	-216.1	-74.3	1.09	-0.43	
2,769.0	5.30	292.10	2,756.2	77.9	-224.0	-77.9	0.58	-0.33	
2,860.0	6.20	299.40	2,846.8	81.9	-232.2	-81.9	1.27	0.99	
2,952.0	5.90	298.00	2,938.2	86.5	-240.7	-86.5	0.36	-0.33	
3,044.0	5.60	291.40	3,029.8	90.4	-249.1	-90.4	0.79	-0.33	
3,138.0	6.50	286.00	3,123.3	93.5	-258.4	-93.5	1.13	0.96	
3,234.0	6.20	281.60	3,218.7	96.1	-268.7	-96.1	0.60	-0.31	
3,328.0	5.80	276.90	3,312.2	97.7	-278.4	-97.7	0.67	-0.43	
3,422.0	5.40	271.00	3,405.7	98.3	-287.6	-98.3	0.75	-0.43	
3,517.0	6.00	294.40	3,500.3	100.4	-296.6	-100.4	2.51	0.63	
3,611.0	5.50	289.20	3,593.8	103.9	-305.3	-103.9	0.77	-0.53	
3,706.0	6.50	295.20	3,688.3	107.7	-314.5	-107.7	1.24	1.05	
3,800.0	5.60	294.00	3,781.7	111.9	-323.5	-111.9	0.97	-0.96	
3,895.0	5.50	294.80	3,876.3	115.7	-331.8	-115.7	0.13	-0.11	
3,990.0	7.20	294.40	3,970.7	120.0	-341.4	-120.0	1.79	1.79	
4,084.0	6.60	297.60	4,064.0	125.0	-351.5	-125.0	0.76	-0.64	
4,179.0	7.10	300.80	4,158.3	130.5	-361.4	-130.5	0.66	0.53	
4,273.0	6.70	298.00	4,251.7	136.0	-371.2	-136.0	0.56	-0.43	
4,368.0	6.50	298.80	4,346.0	141.2	-380.8	-141.2	0.23	-0.21	
4,462.0	6.60	298.70	4,439.4	146.4	-390.3	-146.4	0.11	0.11	
4,557.0	6.00	298.60	4,533.8	151.4	-399.4	-151.4	0.63	-0.63	
4,651.0	6.70	290.50	4,627.3	155.7	-408.8	-155.7	1.21	0.74	
4,746.0	6.30	289.70	4,721.7	159.4	-418.9	-159.4	0.43	-0.42	
4,840.0	6.00	289.40	4,815.1	162.7	-428.4	-162.7	0.32	-0.32	
4,935.0	5.60	288.00	4,909.6	165.8	-437.5	-165.8	0.45	-0.42	
5,029.0	7.10	280.90	5,003.1	168.3	-447.6	-168.3	1.80	1.60	
5,124.0	6.30	278.60	5,097.4	170.2	-458.5	-170.2	0.89	-0.84	
5,218.0	5.60	275.60	5,190.9	171.4	-468.2	-171.4	0.81	-0.74	
5,313.0	6.80	284.30	5,285.3	173.3	-478.2	-173.3	1.60	1.26	
5,408.0	5.70	280.90	5,379.8	175.6	-488.3	-175.6	1.22	-1.16	
5,502.0	6.80	289.60	5,473.2	178.3	-498.2	-178.3	1.54	1.17	
5,597.0	6.00	289.70	5,567.6	181.9	-508.1	-181.9	0.84	-0.84	
5,691.0	7.30	288.60	5,661.0	185.4	-518.4	-185.4	1.39	1.38	
5,786.0	6.80	286.40	5,755.3	188.9	-529.5	-188.9	0.60	-0.53	
5,880.0	5.80	282.30	5,848.7	191.5	-539.5	-191.5	1.17	-1.06	
5,975.0	5.90	284.20	5,943.2	193.7	-548.9	-193.7	0.23	0.11	
6,070.0	5.20	278.00	6,037.8	195.5	-557.9	-195.5	0.97	-0.74	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Elmquist 2C-14H-C268
Project:	DJ Wattenberg	TVD Reference:	KB @ 4894.0ft
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	KB @ 4894.0ft
Well:	Grant Elmquist 2C-14H-C268	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
6,164.0	6.00	280.40	6,131.3	197.0	-567.0	-197.0	0.89	0.85	
6,211.0	5.70	273.10	6,178.1	197.6	-571.7	-197.6	1.71	-0.64	
6,259.0	6.90	253.60	6,225.8	196.9	-576.9	-196.9	5.08	2.50	
6,306.0	8.00	238.50	6,272.4	194.4	-582.4	-194.4	4.76	2.34	
6,354.0	8.90	221.40	6,319.9	189.9	-587.7	-189.9	5.54	1.87	
6,401.0	10.10	207.40	6,366.2	183.5	-592.0	-183.5	5.52	2.55	
6,448.0	10.50	196.10	6,412.5	175.7	-595.1	-175.7	4.37	0.85	
6,495.0	12.10	183.80	6,458.6	166.7	-596.6	-166.7	6.14	3.40	
6,543.0	14.90	179.60	6,505.3	155.5	-596.9	-155.5	6.18	5.83	
6,590.0	16.40	181.40	6,550.5	142.8	-597.0	-142.8	3.35	3.19	
6,637.0	18.10	186.20	6,595.4	128.9	-597.9	-128.9	4.71	3.62	
6,684.0	20.50	190.10	6,639.8	113.6	-600.2	-113.6	5.79	5.11	
6,732.0	23.60	193.20	6,684.2	95.9	-603.8	-95.9	6.90	6.46	
6,779.0	25.90	197.70	6,726.9	77.0	-609.1	-77.0	6.32	4.89	
6,826.0	26.90	197.90	6,769.0	57.1	-615.5	-57.1	2.14	2.13	
6,873.0	29.30	195.30	6,810.5	35.9	-621.8	-35.9	5.73	5.11	
6,921.0	33.00	195.30	6,851.5	11.9	-628.3	-11.9	7.71	7.71	
6,968.0	36.10	195.30	6,890.3	-13.8	-635.4	13.8	6.60	6.60	
7,016.0	39.40	194.80	6,928.2	-42.2	-643.0	42.2	6.90	6.87	
7,063.0	43.30	194.70	6,963.5	-72.2	-650.9	72.2	8.30	8.30	
7,110.0	46.50	191.30	6,996.8	-104.5	-658.3	104.5	8.51	6.81	
7,157.0	50.40	186.70	7,027.9	-139.2	-663.8	139.2	11.06	8.30	
7,205.0	54.90	183.70	7,057.1	-177.2	-667.2	177.2	10.61	9.37	
7,252.0	57.30	182.80	7,083.3	-216.2	-669.4	216.2	5.35	5.11	
7,299.0	58.80	181.80	7,108.1	-256.0	-671.0	256.0	3.67	3.19	
7,346.0	62.70	181.30	7,131.1	-297.0	-672.1	297.0	8.35	8.30	
7,394.0	65.90	180.80	7,151.9	-340.2	-672.9	340.2	6.73	6.67	
7,441.0	68.60	180.40	7,170.1	-383.6	-673.4	383.6	5.80	5.74	
7,489.0	74.20	180.70	7,185.4	-429.0	-673.8	429.0	11.68	11.67	
7,536.0	77.40	180.80	7,196.9	-474.6	-674.4	474.6	6.81	6.81	
7,583.0	80.30	179.70	7,206.0	-520.7	-674.6	520.7	6.58	6.17	
7,630.0	84.70	179.00	7,212.1	-567.3	-674.1	567.3	9.48	9.36	
7,661.0	87.00	179.40	7,214.4	-598.2	-673.7	598.2	7.53	7.42	
7,744.0	88.10	178.90	7,217.9	-681.1	-672.4	681.1	1.46	1.33	
7,836.0	89.90	177.90	7,219.5	-773.1	-669.9	773.1	2.24	1.96	
7,925.0	88.80	178.10	7,220.6	-862.0	-666.7	862.0	1.26	-1.24	
8,017.0	88.20	178.60	7,223.0	-953.9	-664.1	953.9	0.85	-0.65	
8,109.0	86.90	179.10	7,226.9	-1,045.8	-662.3	1,045.8	1.51	-1.41	
8,200.0	87.30	178.50	7,231.5	-1,136.7	-660.3	1,136.7	0.79	0.44	
8,292.0	87.30	179.00	7,235.8	-1,228.6	-658.3	1,228.6	0.54	0.00	
8,383.0	86.40	179.80	7,240.8	-1,319.4	-657.4	1,319.4	1.32	-0.99	
8,475.0	86.60	179.60	7,246.5	-1,411.3	-656.9	1,411.3	0.31	0.22	
8,567.0	88.00	181.10	7,250.8	-1,503.1	-657.5	1,503.1	2.23	1.52	
8,659.0	90.20	181.80	7,252.2	-1,595.1	-659.8	1,595.1	2.51	2.39	
8,750.0	89.50	181.10	7,252.5	-1,686.1	-662.1	1,686.1	1.09	-0.77	
8,842.0	92.60	182.50	7,250.8	-1,778.0	-665.0	1,778.0	3.70	3.37	
8,934.0	91.60	181.30	7,247.4	-1,869.9	-668.0	1,869.9	1.70	-1.09	
9,026.0	91.20	180.40	7,245.2	-1,961.8	-669.4	1,961.8	1.07	-0.43	
9,118.0	91.20	179.30	7,243.2	-2,053.8	-669.2	2,053.8	1.20	0.00	
9,209.0	90.00	177.90	7,242.3	-2,144.8	-666.9	2,144.8	2.03	-1.32	
9,301.0	88.10	179.60	7,243.8	-2,236.7	-664.9	2,236.7	2.77	-2.07	
9,392.0	88.50	179.70	7,246.5	-2,327.7	-664.4	2,327.7	0.45	0.44	
9,484.0	90.40	180.80	7,247.4	-2,419.7	-664.8	2,419.7	2.39	2.07	

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Elmquist 2C-14H-C268
Project:	DJ Wattenberg	TVD Reference:	KB @ 4894.0ft
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	KB @ 4894.0ft
Well:	Grant Elmquist 2C-14H-C268	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
9,575.0	91.40	179.70	7,246.0	-2,510.7	-665.2	2,510.7	1.63	1.10	
9,667.0	91.00	180.70	7,244.0	-2,602.7	-665.5	2,602.7	1.17	-0.43	
9,758.0	90.10	180.20	7,243.2	-2,693.6	-666.2	2,693.6	1.13	-0.99	
9,850.0	91.10	180.70	7,242.2	-2,785.6	-666.9	2,785.6	1.22	1.09	
9,942.0	89.70	179.60	7,241.6	-2,877.6	-667.2	2,877.6	1.94	-1.52	
10,036.0	88.40	179.20	7,243.1	-2,971.6	-666.2	2,971.6	1.45	-1.38	
10,131.0	88.70	180.30	7,245.5	-3,066.6	-665.8	3,066.6	1.20	0.32	
10,226.0	88.40	180.10	7,247.9	-3,161.5	-666.1	3,161.5	0.38	-0.32	
10,320.0	88.40	179.30	7,250.5	-3,255.5	-665.6	3,255.5	0.85	0.00	
10,415.0	88.50	180.60	7,253.1	-3,350.5	-665.5	3,350.5	1.37	0.11	
10,509.0	89.30	181.60	7,254.9	-3,444.4	-667.3	3,444.4	1.36	0.85	
10,604.0	90.60	181.10	7,255.0	-3,539.4	-669.6	3,539.4	1.47	1.37	
10,699.0	90.30	180.80	7,254.3	-3,634.4	-671.2	3,634.4	0.45	-0.32	
10,793.0	91.10	181.00	7,253.1	-3,728.4	-672.6	3,728.4	0.88	0.85	
10,888.0	92.30	179.40	7,250.3	-3,823.3	-673.0	3,823.3	2.10	1.26	
10,983.0	90.90	180.80	7,247.6	-3,918.3	-673.1	3,918.3	2.08	-1.47	
11,077.0	90.20	180.90	7,246.7	-4,012.3	-674.5	4,012.3	0.75	-0.74	
11,171.0	90.60	180.40	7,246.1	-4,106.3	-675.6	4,106.3	0.68	0.43	
11,266.0	87.80	180.80	7,247.4	-4,201.2	-676.6	4,201.2	2.98	-2.95	
11,361.0	86.70	180.90	7,252.0	-4,296.1	-678.0	4,296.1	1.16	-1.16	
11,455.0	88.20	181.30	7,256.1	-4,390.0	-679.8	4,390.0	1.65	1.60	
11,550.0	88.40	180.80	7,259.0	-4,484.9	-681.5	4,484.9	0.57	0.21	
11,644.0	87.30	182.40	7,262.5	-4,578.8	-684.2	4,578.8	2.06	-1.17	
11,738.0	90.20	182.20	7,264.5	-4,672.7	-687.9	4,672.7	3.09	3.09	
11,833.0	90.60	180.70	7,263.9	-4,767.7	-690.3	4,767.7	1.63	0.42	
11,928.0	91.00	180.10	7,262.6	-4,862.7	-691.0	4,862.7	0.76	0.42	
12,022.0	91.90	178.70	7,260.2	-4,956.6	-690.0	4,956.6	1.77	0.96	
12,117.0	92.80	178.40	7,256.3	-5,051.5	-687.6	5,051.5	1.00	0.95	
12,212.0	90.60	179.10	7,253.5	-5,146.4	-685.5	5,146.4	2.43	-2.32	
12,306.0	91.20	178.20	7,252.0	-5,240.4	-683.3	5,240.4	1.15	0.64	
12,401.0	88.80	178.60	7,252.0	-5,335.4	-680.7	5,335.4	2.56	-2.53	
12,495.0	88.70	177.90	7,254.0	-5,429.3	-677.8	5,429.3	0.75	-0.11	
12,590.0	89.30	178.60	7,255.7	-5,524.2	-674.9	5,524.2	0.97	0.63	
12,685.0	89.60	179.80	7,256.6	-5,619.2	-673.6	5,619.2	1.30	0.32	
12,779.0	88.90	181.20	7,257.8	-5,713.2	-674.4	5,713.2	1.67	-0.74	
12,874.0	89.20	180.00	7,259.4	-5,808.2	-675.4	5,808.2	1.30	0.32	
12,968.0	88.90	182.60	7,261.0	-5,902.1	-677.5	5,902.1	2.78	-0.32	
13,063.0	88.40	182.00	7,263.2	-5,997.0	-681.3	5,997.0	0.82	-0.53	
13,157.0	89.30	182.80	7,265.1	-6,090.9	-685.3	6,090.9	1.28	0.96	
13,252.0	89.60	181.50	7,266.0	-6,185.8	-688.8	6,185.8	1.40	0.32	
13,347.0	89.70	180.10	7,266.6	-6,280.8	-690.2	6,280.8	1.48	0.11	
13,441.0	90.50	179.60	7,266.4	-6,374.8	-689.9	6,374.8	1.00	0.85	
13,536.0	90.60	179.60	7,265.5	-6,469.8	-689.2	6,469.8	0.11	0.11	
13,630.0	90.10	178.50	7,264.9	-6,563.8	-687.7	6,563.8	1.29	-0.53	
13,671.0	90.00	178.40	7,264.9	-6,604.8	-686.6	6,604.8	0.34	-0.24	Last CES Survey @ 13,671' MD
13,723.0	90.00	178.40	7,264.9	-6,656.8	-685.1	6,656.8	0.00	0.00	PTB @ 13,723' MD

Survey Report

Company: EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference: Well Grant Elmquist 2C-14H-C268
Project: DJ Wattenberg	TVD Reference: KB @ 4894.0ft
Site: S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference: KB @ 4894.0ft
Well: Grant Elmquist 2C-14H-C268	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 - Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Grant Elmquist 2C-14H- - survey misses target center by 55.2ft at 13723.0ft MD (7264.9 TVD, -6656.8 N, -685.1 E) - Point	0.00	0.00	7,251.4	-6,710.0	-690.7	1,288,976.70	3,146,454.81	40.125440	-104.976290
Grant Elmquist 2C-14H I - survey misses target center by 39.7ft at 7489.0ft MD (7185.4 TVD, -429.0 N, -673.8 E) - Point	0.00	0.00	7,220.0	-418.2	-657.8	1,295,268.64	3,146,450.42	40.142712	-104.976173
Grant Elmquist 2C 8800' - survey misses target center by 3.6ft at 8682.2ft MD (7252.2 TVD, -1618.2 N, -660.5 E) - Point	0.00	0.00	7,251.4	-1,618.1	-664.0	1,294,068.64	3,146,451.25	40.139418	-104.976195
Grant Elmquist 2C-14H- - survey misses target center by 84.1ft at 13723.0ft MD (7264.9 TVD, -6656.8 N, -685.1 E) - Point	0.00	0.00	7,200.0	-6,710.0	-690.7	1,288,976.70	3,146,454.81	40.125440	-104.976290
Grant Elmquist 2C-14H- - survey misses target center by 10.0ft at 7136.2ft MD (7014.5 TVD, -123.6 N, -661.7 E) - Point	0.00	0.00	7,009.1	-129.4	-655.5	1,295,557.45	3,146,450.92	40.143505	-104.976165

Survey Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
13,671.0	7,264.9	-6,604.8	-686.6	Last CES Survey @ 13,671' MD
13,723.0	7,264.9	-6,656.8	-685.1	PTB @ 13,723' MD

Checked By: _____ Approved By: _____ Date: _____

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)

Grant Elmquist 2C-14H-C268

Hz

Survey: SURVEYS

Survey Report - Geographic

18 December, 2014

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Elmquist 2C-14H-C268
Project:	DJ Wattenberg	TVD Reference:	KB @ 4894.0ft
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	KB @ 4894.0ft
Well:	Grant Elmquist 2C-14H-C268	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	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)				
Site Position:		Northing:	1,295,686.81 ft	Latitude:	40.143850
From:	Lat/Long	Easting:	3,147,060.98 ft	Longitude:	-104.973980
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.34 °

Well	Grant Elmquist 2C-14H-C268					
Well Position	+N/-S	0.0 ft	Northing:	1,295,690.70 ft	Latitude:	40.143860
	+E/-W	0.0 ft	Easting:	3,147,105.69 ft	Longitude:	-104.973820
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,881.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/6/2014	8.49	66.69	52,608

Design	FINAL				
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	180.00	

Survey Program	Date	12/18/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
143.0	13,723.0	SURVEYS (Hz)	Geolink MWD	Geolink MWD	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	1,295,690.70	3,147,105.69	40.143860	-104.973820	
143.0	0.40	219.50	143.0	-0.4	-0.3	1,295,690.31	3,147,105.37	40.143859	-104.973821	
234.0	0.40	244.70	234.0	-0.8	-0.8	1,295,689.93	3,147,104.89	40.143858	-104.973823	
325.0	0.40	271.60	325.0	-0.9	-1.4	1,295,689.80	3,147,104.28	40.143858	-104.973825	
417.0	0.60	261.80	417.0	-1.0	-2.2	1,295,689.73	3,147,103.48	40.143857	-104.973828	
509.0	2.20	305.50	509.0	0.0	-4.1	1,295,690.68	3,147,101.56	40.143860	-104.973835	
601.0	4.50	308.20	600.8	3.3	-8.4	1,295,693.91	3,147,097.27	40.143869	-104.973850	
693.0	5.90	301.10	692.4	7.9	-15.3	1,295,698.55	3,147,090.36	40.143882	-104.973875	
785.0	5.80	301.20	783.9	12.8	-23.3	1,295,703.35	3,147,082.30	40.143895	-104.973904	
821.0	5.80	300.00	819.8	14.6	-26.4	1,295,705.18	3,147,079.16	40.143900	-104.973915	
927.0	5.90	305.60	925.2	20.5	-35.5	1,295,710.98	3,147,070.06	40.143916	-104.973947	
1,021.0	6.10	305.10	1,018.7	26.2	-43.5	1,295,716.61	3,147,062.01	40.143932	-104.973976	

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Elmquist 2C-14H-C268
Project:	DJ Wattenberg	TVD Reference:	KB @ 4894.0ft
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	KB @ 4894.0ft
Well:	Grant Elmquist 2C-14H-C268	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)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude	
1,116.0	5.80	306.00	1,113.2	31.9	-51.5	1,295,722.29	3,147,053.96	40.143948	-104.974005	
1,211.0	6.20	300.30	1,207.7	37.3	-59.8	1,295,727.65	3,147,045.62	40.143962	-104.974034	
1,302.0	6.90	287.30	1,298.1	41.4	-69.3	1,295,731.70	3,147,036.13	40.143974	-104.974068	
1,394.0	6.80	284.30	1,389.4	44.4	-79.9	1,295,734.63	3,147,025.56	40.143982	-104.974106	
1,485.0	6.60	282.60	1,479.8	46.9	-90.2	1,295,737.04	3,147,015.22	40.143989	-104.974143	
1,577.0	6.60	279.00	1,571.2	48.9	-100.6	1,295,738.95	3,147,004.83	40.143994	-104.974180	
1,669.0	6.70	277.60	1,662.6	50.4	-111.1	1,295,740.43	3,146,994.28	40.143998	-104.974218	
1,760.0	6.70	273.90	1,752.9	51.5	-121.7	1,295,741.43	3,146,983.71	40.144001	-104.974255	
1,852.0	6.50	269.30	1,844.3	51.8	-132.2	1,295,741.67	3,146,973.15	40.144002	-104.974293	
1,944.0	6.30	265.00	1,935.8	51.2	-142.5	1,295,741.10	3,146,962.92	40.144001	-104.974330	
2,036.0	6.50	280.70	2,027.2	51.8	-152.6	1,295,741.57	3,146,952.77	40.144002	-104.974366	
2,128.0	6.30	296.30	2,118.6	55.0	-162.3	1,295,744.72	3,146,943.11	40.144011	-104.974401	
2,219.0	6.20	291.10	2,209.1	59.0	-171.3	1,295,748.64	3,146,934.02	40.144022	-104.974433	
2,311.0	6.00	286.90	2,300.6	62.1	-180.6	1,295,751.78	3,146,924.77	40.144031	-104.974466	
2,403.0	5.80	284.10	2,392.1	64.7	-189.7	1,295,754.25	3,146,915.64	40.144038	-104.974499	
2,494.0	6.00	291.90	2,482.6	67.6	-198.5	1,295,757.09	3,146,906.76	40.144046	-104.974530	
2,585.0	6.00	287.60	2,573.1	70.8	-207.5	1,295,760.25	3,146,897.79	40.144054	-104.974562	
2,677.0	5.60	296.70	2,664.6	74.3	-216.1	1,295,763.67	3,146,889.18	40.144064	-104.974593	
2,769.0	5.30	292.10	2,756.2	77.9	-224.0	1,295,767.24	3,146,881.21	40.144074	-104.974622	
2,860.0	6.20	299.40	2,846.8	81.9	-232.2	1,295,771.19	3,146,873.01	40.144085	-104.974651	
2,952.0	5.90	298.00	2,938.2	86.5	-240.7	1,295,775.79	3,146,864.48	40.144098	-104.974681	
3,044.0	5.60	291.40	3,029.8	90.4	-249.1	1,295,779.60	3,146,856.10	40.144108	-104.974711	
3,138.0	6.50	286.00	3,123.3	93.5	-258.4	1,295,782.69	3,146,846.70	40.144117	-104.974745	
3,234.0	6.20	281.60	3,218.7	96.1	-268.7	1,295,785.17	3,146,836.38	40.144124	-104.974782	
3,328.0	5.80	276.90	3,312.2	97.7	-278.4	1,295,786.70	3,146,826.68	40.144128	-104.974816	
3,422.0	5.40	271.00	3,405.7	98.3	-287.6	1,295,787.29	3,146,817.54	40.144130	-104.974849	
3,517.0	6.00	294.40	3,500.3	100.4	-296.6	1,295,789.37	3,146,808.54	40.144136	-104.974881	
3,611.0	5.50	289.20	3,593.8	103.9	-305.3	1,295,792.83	3,146,799.79	40.144145	-104.974912	
3,706.0	6.50	295.20	3,688.3	107.7	-314.5	1,295,796.56	3,146,790.60	40.144156	-104.974945	
3,800.0	5.60	294.00	3,781.7	111.9	-323.5	1,295,800.64	3,146,781.57	40.144167	-104.974977	
3,895.0	5.50	294.80	3,876.3	115.7	-331.8	1,295,804.38	3,146,773.18	40.144178	-104.975007	
3,990.0	7.20	294.40	3,970.7	120.0	-341.4	1,295,808.70	3,146,763.60	40.144190	-104.975041	
4,084.0	6.60	297.60	4,064.0	125.0	-351.5	1,295,813.57	3,146,753.42	40.144203	-104.975078	
4,179.0	7.10	300.80	4,158.3	130.5	-361.4	1,295,819.05	3,146,743.51	40.144218	-104.975113	
4,273.0	6.70	298.00	4,251.7	136.0	-371.2	1,295,824.54	3,146,733.64	40.144234	-104.975148	
4,368.0	6.50	298.80	4,346.0	141.2	-380.8	1,295,829.67	3,146,724.01	40.144248	-104.975183	
4,462.0	6.60	298.70	4,439.4	146.4	-390.3	1,295,834.78	3,146,714.58	40.144262	-104.975216	
4,557.0	6.00	298.60	4,533.8	151.4	-399.4	1,295,839.72	3,146,705.40	40.144276	-104.975249	
4,651.0	6.70	290.50	4,627.3	155.7	-408.8	1,295,843.94	3,146,695.92	40.144287	-104.975283	
4,746.0	6.30	289.70	4,721.7	159.4	-418.9	1,295,847.57	3,146,685.80	40.144298	-104.975319	
4,840.0	6.00	289.40	4,815.1	162.7	-428.4	1,295,850.89	3,146,676.29	40.144307	-104.975353	
4,935.0	5.60	288.00	4,909.6	165.8	-437.5	1,295,853.92	3,146,667.18	40.144315	-104.975385	
5,029.0	7.10	280.90	5,003.1	168.3	-447.6	1,295,856.37	3,146,657.10	40.144322	-104.975421	
5,124.0	6.30	278.60	5,097.4	170.2	-458.5	1,295,858.20	3,146,646.17	40.144327	-104.975460	
5,218.0	5.60	275.60	5,190.9	171.4	-468.2	1,295,859.36	3,146,636.50	40.144331	-104.975495	
5,313.0	6.80	284.30	5,285.3	173.3	-478.2	1,295,861.14	3,146,626.43	40.144336	-104.975531	
5,408.0	5.70	280.90	5,379.8	175.6	-488.3	1,295,863.36	3,146,616.33	40.144342	-104.975567	
5,502.0	6.80	289.60	5,473.2	178.3	-498.2	1,295,866.05	3,146,606.49	40.144350	-104.975602	
5,597.0	6.00	289.70	5,567.6	181.9	-508.1	1,295,869.55	3,146,596.49	40.144359	-104.975638	
5,691.0	7.30	288.60	5,661.0	185.4	-518.4	1,295,873.05	3,146,586.19	40.144369	-104.975675	
5,786.0	6.80	286.40	5,755.3	188.9	-529.5	1,295,876.50	3,146,575.05	40.144379	-104.975714	
5,880.0	5.80	282.30	5,848.7	191.5	-539.5	1,295,879.02	3,146,565.06	40.144386	-104.975750	
5,975.0	5.90	284.20	5,943.2	193.7	-548.9	1,295,881.19	3,146,555.62	40.144392	-104.975784	
6,070.0	5.20	278.00	6,037.8	195.5	-557.9	1,295,882.93	3,146,546.61	40.144397	-104.975816	
6,164.0	6.00	280.40	6,131.3	197.0	-567.0	1,295,884.36	3,146,537.55	40.144401	-104.975848	

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Elmquist 2C-14H-C268
Project:	DJ Wattenberg	TVD Reference:	KB @ 4894.0ft
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	KB @ 4894.0ft
Well:	Grant Elmquist 2C-14H-C268	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)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude	
6,211.0	5.70	273.10	6,178.1	197.6	-571.7	1,295,884.90	3,146,532.80	40.144402	-104.975865	
6,259.0	6.90	253.60	6,225.8	196.9	-576.9	1,295,884.18	3,146,527.66	40.144401	-104.975884	
6,306.0	8.00	238.50	6,272.4	194.4	-582.4	1,295,881.65	3,146,522.18	40.144394	-104.975903	
6,354.0	8.90	221.40	6,319.9	189.9	-587.7	1,295,877.08	3,146,516.90	40.144381	-104.975922	
6,401.0	10.10	207.40	6,366.2	183.5	-592.0	1,295,870.67	3,146,512.64	40.144364	-104.975938	
6,448.0	10.50	196.10	6,412.5	175.7	-595.1	1,295,862.88	3,146,509.60	40.144342	-104.975949	
6,495.0	12.10	183.80	6,458.6	166.7	-596.6	1,295,853.84	3,146,508.14	40.144318	-104.975954	
6,543.0	14.90	179.60	6,505.3	155.5	-596.9	1,295,842.64	3,146,507.91	40.144287	-104.975955	
6,590.0	16.40	181.40	6,550.5	142.8	-597.0	1,295,829.97	3,146,507.87	40.144252	-104.975956	
6,637.0	18.10	186.20	6,595.4	128.9	-597.9	1,295,816.07	3,146,507.00	40.144214	-104.975959	
6,684.0	20.50	190.10	6,639.8	113.6	-600.2	1,295,800.69	3,146,504.86	40.144172	-104.975967	
6,732.0	23.60	193.20	6,684.2	95.9	-603.8	1,295,783.04	3,146,501.29	40.144123	-104.975980	
6,779.0	25.90	197.70	6,726.9	77.0	-609.1	1,295,764.06	3,146,496.14	40.144071	-104.975999	
6,826.0	26.90	197.90	6,769.0	57.1	-615.5	1,295,744.13	3,146,489.87	40.144017	-104.976022	
6,873.0	29.30	195.30	6,810.5	35.9	-621.8	1,295,722.88	3,146,483.69	40.143958	-104.976044	
6,921.0	33.00	195.30	6,851.5	11.9	-628.3	1,295,698.89	3,146,477.28	40.143893	-104.976068	
6,968.0	36.10	195.30	6,890.3	-13.8	-635.4	1,295,673.14	3,146,470.40	40.143822	-104.976093	
7,016.0	39.40	194.80	6,928.2	-42.2	-643.0	1,295,644.72	3,146,462.94	40.143744	-104.976120	
7,063.0	43.30	194.70	6,963.5	-72.2	-650.9	1,295,614.65	3,146,455.22	40.143662	-104.976149	
7,110.0	46.50	191.30	6,996.8	-104.5	-658.3	1,295,582.29	3,146,447.98	40.143573	-104.976175	
7,157.0	50.40	186.70	7,027.9	-139.2	-663.8	1,295,547.54	3,146,442.73	40.143478	-104.976195	
7,205.0	54.90	183.70	7,057.1	-177.2	-667.2	1,295,509.53	3,146,439.53	40.143374	-104.976207	
7,252.0	57.30	182.80	7,083.3	-216.2	-669.4	1,295,470.58	3,146,437.55	40.143267	-104.976215	
7,299.0	58.80	181.80	7,108.1	-256.0	-671.0	1,295,430.72	3,146,436.19	40.143157	-104.976221	
7,346.0	62.70	181.30	7,131.1	-297.0	-672.1	1,295,389.73	3,146,435.33	40.143045	-104.976224	
7,394.0	65.90	180.80	7,151.9	-340.2	-672.9	1,295,346.49	3,146,434.79	40.142926	-104.976227	
7,441.0	68.60	180.40	7,170.1	-383.6	-673.4	1,295,303.15	3,146,434.60	40.142807	-104.976229	
7,489.0	74.20	180.70	7,185.4	-429.0	-673.8	1,295,257.67	3,146,434.43	40.142682	-104.976230	
7,536.0	77.40	180.80	7,196.9	-474.6	-674.4	1,295,212.12	3,146,434.10	40.142557	-104.976233	
7,583.0	80.30	179.70	7,206.0	-520.7	-674.6	1,295,166.01	3,146,434.18	40.142431	-104.976233	
7,630.0	84.70	179.00	7,212.1	-567.3	-674.1	1,295,119.43	3,146,434.98	40.142303	-104.976231	
7,661.0	87.00	179.40	7,214.4	-598.2	-673.7	1,295,088.52	3,146,435.60	40.142218	-104.976230	
7,744.0	88.10	178.90	7,217.9	-681.1	-672.4	1,295,005.60	3,146,437.32	40.141990	-104.976225	
7,836.0	89.90	177.90	7,219.5	-773.1	-669.9	1,294,913.67	3,146,440.44	40.141738	-104.976216	
7,925.0	88.80	178.10	7,220.6	-862.0	-666.7	1,294,824.75	3,146,444.07	40.141494	-104.976205	
8,017.0	88.20	178.60	7,223.0	-953.9	-664.1	1,294,732.84	3,146,447.26	40.141241	-104.976196	
8,109.0	86.90	179.10	7,226.9	-1,045.8	-662.3	1,294,640.96	3,146,449.65	40.140989	-104.976189	
8,200.0	87.30	178.50	7,231.5	-1,136.7	-660.3	1,294,550.11	3,146,452.09	40.140740	-104.976182	
8,292.0	87.30	179.00	7,235.8	-1,228.6	-658.3	1,294,458.25	3,146,454.64	40.140487	-104.976175	
8,383.0	86.40	179.80	7,240.8	-1,319.4	-657.4	1,294,367.40	3,146,456.14	40.140238	-104.976172	
8,475.0	86.60	179.60	7,246.5	-1,411.3	-656.9	1,294,275.57	3,146,457.16	40.139986	-104.976170	
8,567.0	88.00	181.10	7,250.8	-1,503.1	-657.5	1,294,183.68	3,146,457.14	40.139734	-104.976172	
8,659.0	90.20	181.80	7,252.2	-1,595.1	-659.8	1,294,091.72	3,146,455.36	40.139481	-104.976180	
8,750.0	89.50	181.10	7,252.5	-1,686.1	-662.1	1,294,000.73	3,146,453.60	40.139232	-104.976188	
8,842.0	92.60	182.50	7,250.8	-1,778.0	-665.0	1,293,908.79	3,146,451.26	40.138979	-104.976199	
8,934.0	91.60	181.30	7,247.4	-1,869.9	-668.0	1,293,816.89	3,146,448.75	40.138727	-104.976210	
9,026.0	91.20	180.40	7,245.2	-1,961.8	-669.4	1,293,724.92	3,146,447.94	40.138475	-104.976215	
9,118.0	91.20	179.30	7,243.2	-2,053.8	-669.2	1,293,632.95	3,146,448.72	40.138222	-104.976214	
9,209.0	90.00	177.90	7,242.3	-2,144.8	-666.9	1,293,542.00	3,146,451.49	40.137972	-104.976206	
9,301.0	88.10	179.60	7,243.8	-2,236.7	-664.9	1,293,450.05	3,146,454.04	40.137720	-104.976199	
9,392.0	88.50	179.70	7,246.5	-2,327.7	-664.4	1,293,359.10	3,146,455.13	40.137470	-104.976197	
9,484.0	90.40	180.80	7,247.4	-2,419.7	-664.8	1,293,267.11	3,146,455.28	40.137218	-104.976198	
9,575.0	91.40	179.70	7,246.0	-2,510.7	-665.2	1,293,176.12	3,146,455.42	40.136968	-104.976199	
9,667.0	91.00	180.70	7,244.0	-2,602.7	-665.5	1,293,084.15	3,146,455.64	40.136715	-104.976201	
9,758.0	90.10	180.20	7,243.2	-2,693.6	-666.2	1,292,993.15	3,146,455.47	40.136466	-104.976203	

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Elmquist 2C-14H-C268
Project:	DJ Wattenberg	TVD Reference:	KB @ 4894.0ft
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	KB @ 4894.0ft
Well:	Grant Elmquist 2C-14H-C268	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)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude	
9,850.0	91.10	180.70	7,242.2	-2,785.6	-666.9	1,292,901.16	3,146,455.29	40.136213	-104.976206	
9,942.0	89.70	179.60	7,241.6	-2,877.6	-667.2	1,292,809.16	3,146,455.60	40.135961	-104.976206	
10,036.0	88.40	179.20	7,243.1	-2,971.6	-666.2	1,292,715.19	3,146,457.14	40.135703	-104.976203	
10,131.0	88.70	180.30	7,245.5	-3,066.6	-665.8	1,292,620.23	3,146,458.12	40.135442	-104.976201	
10,226.0	88.40	180.10	7,247.9	-3,161.5	-666.1	1,292,525.26	3,146,458.35	40.135181	-104.976203	
10,320.0	88.40	179.30	7,250.5	-3,255.5	-665.6	1,292,431.30	3,146,459.40	40.134923	-104.976201	
10,415.0	88.50	180.60	7,253.1	-3,350.5	-665.5	1,292,336.34	3,146,460.05	40.134663	-104.976201	
10,509.0	89.30	181.60	7,254.9	-3,444.4	-667.3	1,292,242.37	3,146,458.80	40.134405	-104.976207	
10,604.0	90.60	181.10	7,255.0	-3,539.4	-669.6	1,292,147.39	3,146,457.12	40.134144	-104.976215	
10,699.0	90.30	180.80	7,254.3	-3,634.4	-671.2	1,292,052.39	3,146,456.11	40.133883	-104.976221	
10,793.0	91.10	181.00	7,253.1	-3,728.4	-672.6	1,291,958.41	3,146,455.19	40.133625	-104.976226	
10,888.0	92.30	179.40	7,250.3	-3,823.3	-673.0	1,291,863.45	3,146,455.43	40.133364	-104.976227	
10,983.0	90.90	180.80	7,247.6	-3,918.3	-673.1	1,291,768.50	3,146,455.82	40.133104	-104.976228	
11,077.0	90.20	180.90	7,246.7	-4,012.3	-674.5	1,291,674.50	3,146,454.99	40.132846	-104.976233	
11,171.0	90.60	180.40	7,246.1	-4,106.3	-675.6	1,291,580.51	3,146,454.48	40.132588	-104.976236	
11,266.0	87.80	180.80	7,247.4	-4,201.2	-676.6	1,291,485.53	3,146,454.05	40.132327	-104.976240	
11,361.0	86.70	180.90	7,252.0	-4,296.1	-678.0	1,291,390.66	3,146,453.20	40.132067	-104.976245	
11,455.0	88.20	181.30	7,256.1	-4,390.0	-679.8	1,291,296.77	3,146,451.96	40.131809	-104.976251	
11,550.0	88.40	180.80	7,259.0	-4,484.9	-681.5	1,291,201.82	3,146,450.78	40.131548	-104.976258	
11,644.0	87.30	182.40	7,262.5	-4,578.8	-684.2	1,291,107.91	3,146,448.72	40.131291	-104.976267	
11,738.0	90.20	182.20	7,264.5	-4,672.7	-687.9	1,291,014.00	3,146,445.50	40.131033	-104.976281	
11,833.0	90.60	180.70	7,263.9	-4,767.7	-690.3	1,290,919.02	3,146,443.66	40.130772	-104.976289	
11,928.0	91.00	180.10	7,262.6	-4,862.7	-691.0	1,290,824.03	3,146,443.56	40.130511	-104.976291	
12,022.0	91.90	178.70	7,260.2	-4,956.6	-690.0	1,290,730.08	3,146,445.10	40.130253	-104.976288	
12,117.0	92.80	178.40	7,256.3	-5,051.5	-687.6	1,290,635.21	3,146,448.07	40.129993	-104.976279	
12,212.0	90.60	179.10	7,253.5	-5,146.4	-685.5	1,290,540.29	3,146,450.70	40.129732	-104.976272	
12,306.0	91.20	178.20	7,252.0	-5,240.4	-683.3	1,290,446.34	3,146,453.47	40.129474	-104.976264	
12,401.0	88.80	178.60	7,252.0	-5,335.3	-680.7	1,290,351.41	3,146,456.69	40.129214	-104.976254	
12,495.0	88.70	177.90	7,254.0	-5,429.3	-677.8	1,290,257.49	3,146,460.12	40.128956	-104.976244	
12,590.0	89.30	178.60	7,255.7	-5,524.2	-674.9	1,290,162.57	3,146,463.58	40.128695	-104.976234	
12,685.0	89.60	179.80	7,256.6	-5,619.2	-673.6	1,290,067.59	3,146,465.47	40.128435	-104.976229	
12,779.0	88.90	181.20	7,257.8	-5,713.2	-674.4	1,289,973.61	3,146,465.21	40.128177	-104.976232	
12,874.0	89.20	180.00	7,259.4	-5,808.2	-675.4	1,289,878.62	3,146,464.78	40.127916	-104.976236	
12,968.0	88.90	182.60	7,261.0	-5,902.1	-677.5	1,289,784.66	3,146,463.20	40.127658	-104.976243	
13,063.0	88.40	182.00	7,263.2	-5,997.0	-681.3	1,289,689.74	3,146,459.95	40.127397	-104.976257	
13,157.0	89.30	182.80	7,265.1	-6,090.9	-685.3	1,289,595.82	3,146,456.58	40.127140	-104.976271	
13,252.0	89.60	181.50	7,266.0	-6,185.8	-688.8	1,289,500.87	3,146,453.58	40.126879	-104.976284	
13,347.0	89.70	180.10	7,266.6	-6,280.8	-690.2	1,289,405.88	3,146,452.81	40.126618	-104.976288	
13,441.0	90.50	179.60	7,266.4	-6,374.8	-689.9	1,289,311.89	3,146,453.62	40.126360	-104.976287	
13,536.0	90.60	179.60	7,265.5	-6,469.8	-689.2	1,289,216.90	3,146,454.84	40.126099	-104.976285	
13,630.0	90.10	178.50	7,264.9	-6,563.8	-687.7	1,289,122.93	3,146,456.96	40.125841	-104.976279	
13,671.0	90.00	178.40	7,264.9	-6,604.8	-686.6	1,289,081.95	3,146,458.31	40.125729	-104.976276	
Last CES Survey @ 13,671' MD										
13,723.0	90.00	178.40	7,264.9	-6,656.8	-685.1	1,289,029.98	3,146,460.07	40.125586	-104.976270	
PTB @ 13,723' MD										

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
13,671.0	7,264.9	-6,604.8	-686.6	Last CES Survey @ 13,671' MD	
13,723.0	7,264.9	-6,656.8	-685.1	PTB @ 13,723' MD	

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Elmquist 2C-14H-C268
Project:	DJ Wattenberg	TVD Reference:	KB @ 4894.0ft
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	KB @ 4894.0ft
Well:	Grant Elmquist 2C-14H-C268	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Checked By: _____ Approved By: _____ Date: _____