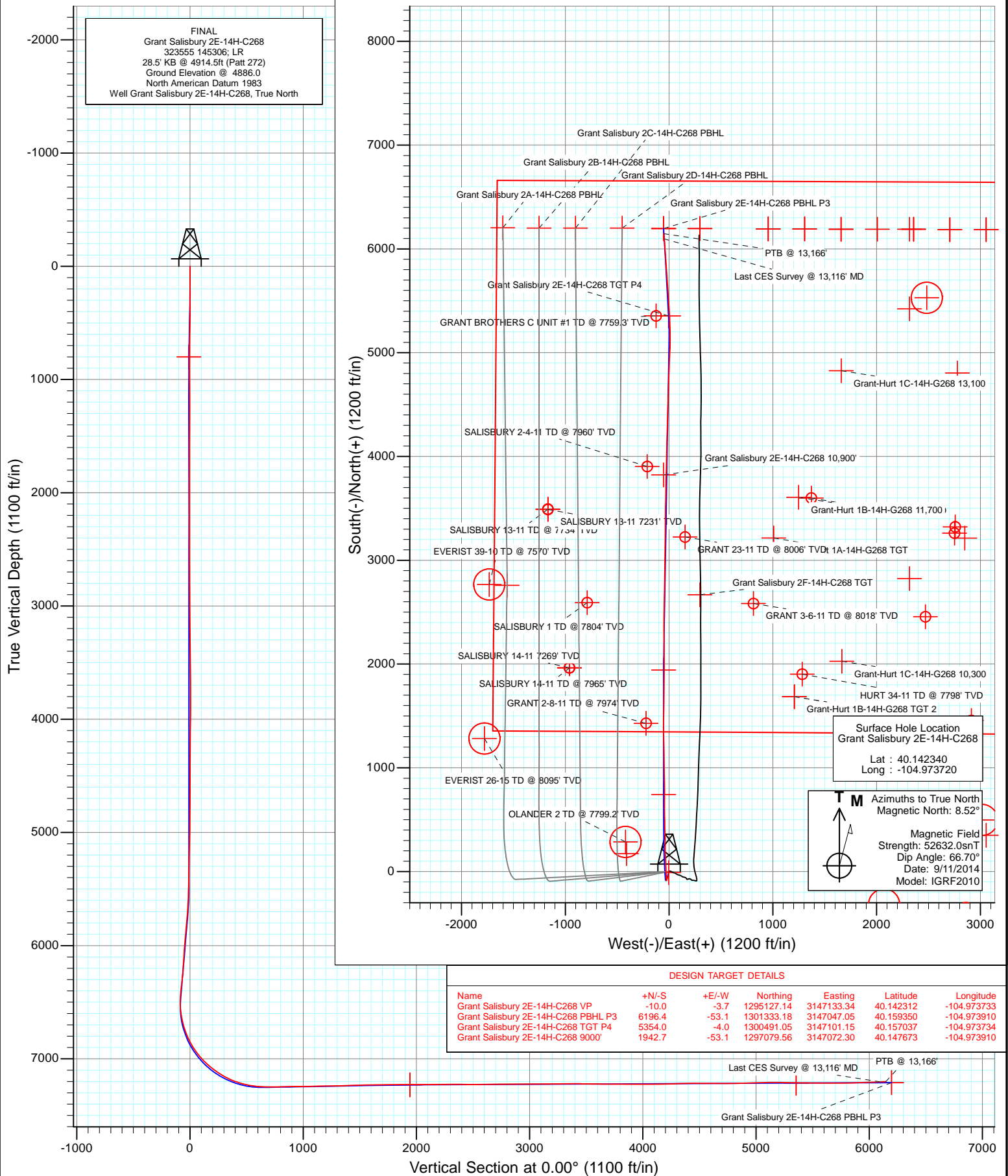


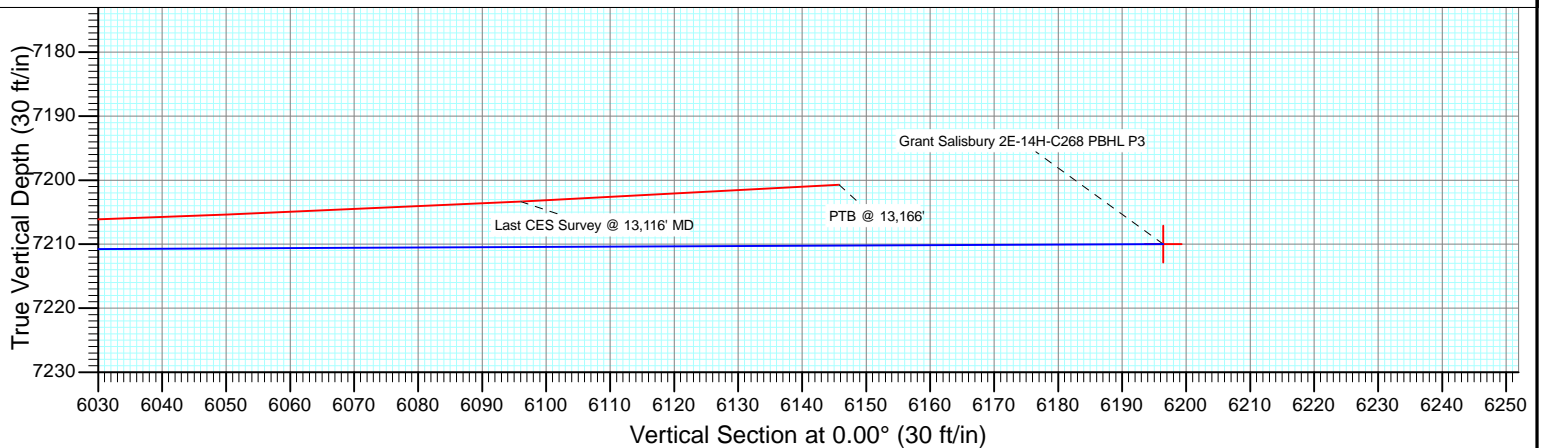
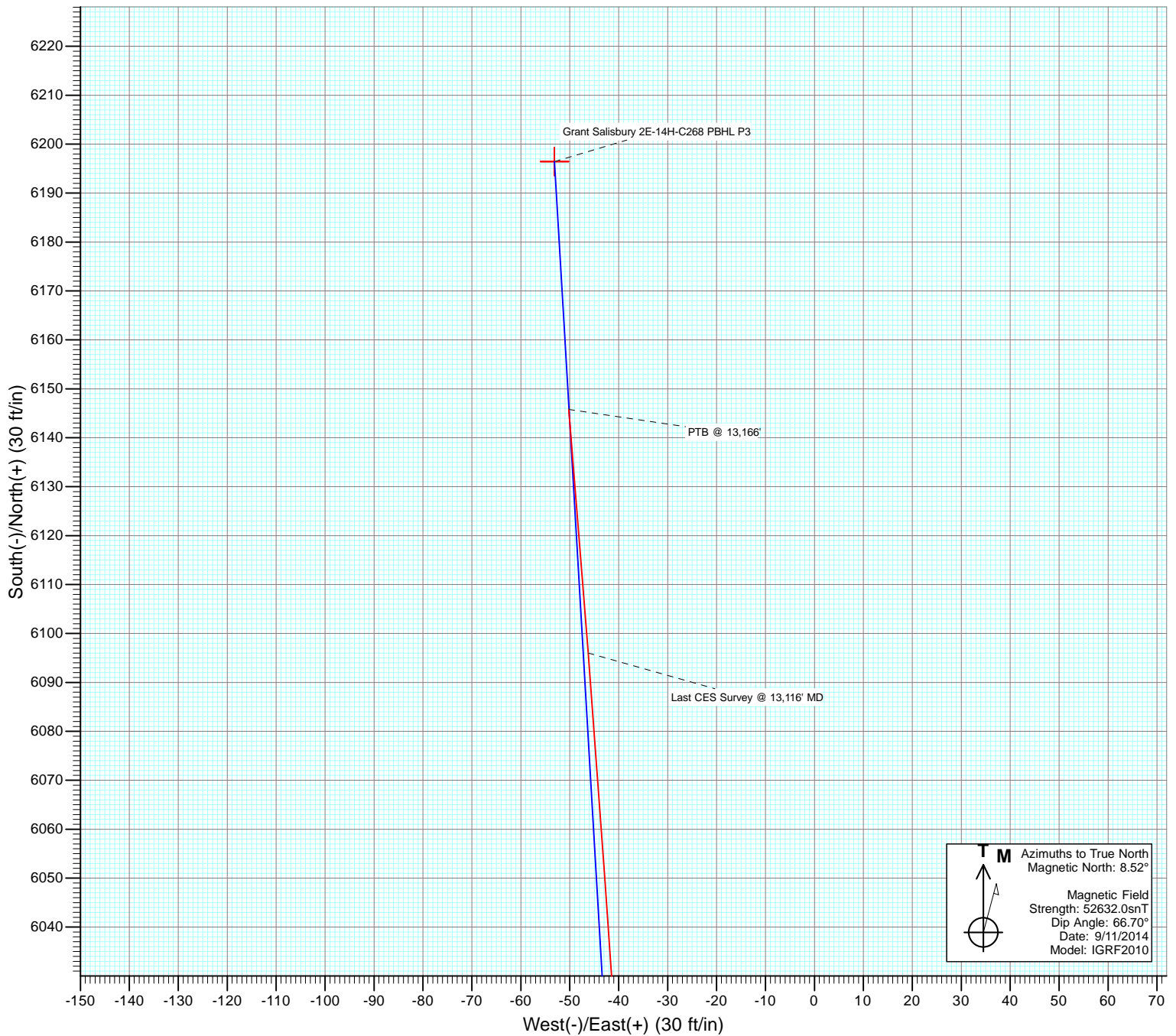


Project: DJ Wattenberg
Site: S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)
Well: Grant Salisbury 2E-14H-C268
Wellbore: Hz
Design: FINAL





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



Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Salisbury 2E-14H-C268
Project:	DJ Wattenberg	TVD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Well:	Grant Salisbury 2E-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 Salisbury 2E-14H-C268					
Well Position	+N/-S	0.0 ft	Northing:	1,295,137.17 ft	Latitude:	40.142340
	+E/-W	0.0 ft	Easting:	3,147,136.93 ft	Longitude:	-104.973720
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,886.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/11/2014	8.52	66.70	52,632

Design	FINAL				
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	0.00	

Survey Program	Date	9/24/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
140.0	13,166.0	Survey #1 (Hz)	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		
140.0	0.60	317.60	140.0	0.5	-0.5	0.5	0.43	0.43		
234.0	1.00	260.80	234.0	0.8	-1.6	0.8	0.89	0.43		
327.0	1.10	270.20	327.0	0.6	-3.3	0.6	0.21	0.11		
421.0	1.10	228.50	421.0	0.1	-4.9	0.1	0.83	0.00		
514.0	1.10	199.50	513.9	-1.4	-5.9	-1.4	0.59	0.00		
608.0	1.20	225.20	607.9	-2.9	-6.9	-2.9	0.55	0.11		
702.0	0.60	223.60	701.9	-4.0	-7.9	-4.0	0.64	-0.64		
795.0	0.60	215.20	794.9	-4.7	-8.5	-4.7	0.09	0.00		
870.0	0.20	317.60	869.9	-4.9	-8.8	-4.9	0.90	-0.53		
988.0	0.30	31.50	987.9	-4.5	-8.8	-4.5	0.26	0.08		
1,082.0	0.30	348.90	1,081.9	-4.1	-8.7	-4.1	0.23	0.00		
1,175.0	0.10	5.50	1,174.9	-3.8	-8.8	-3.8	0.22	-0.22		

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Salisbury 2E-14H-C268
Project:	DJ Wattenberg	TVD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Well:	Grant Salisbury 2E-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
1,269.0	0.10	309.30	1,268.9	-3.6	-8.8	-3.6	0.10	0.00	
1,362.0	0.40	325.50	1,361.9	-3.3	-9.1	-3.3	0.33	0.32	
1,456.0	0.90	170.30	1,455.9	-3.8	-9.1	-3.8	1.36	0.53	
1,550.0	1.00	172.00	1,549.9	-5.3	-8.9	-5.3	0.11	0.11	
1,643.0	0.90	302.80	1,642.9	-5.7	-9.4	-5.7	1.86	-0.11	
1,737.0	0.80	93.00	1,736.9	-5.4	-9.4	-5.4	1.75	-0.11	
1,830.0	0.80	103.80	1,829.9	-5.5	-8.1	-5.5	0.16	0.00	
1,924.0	0.60	107.90	1,923.9	-5.8	-7.0	-5.8	0.22	-0.21	
2,017.0	0.20	92.70	2,016.9	-6.0	-6.4	-6.0	0.44	-0.43	
2,111.0	0.20	49.40	2,110.9	-5.9	-6.1	-5.9	0.16	0.00	
2,204.0	0.60	80.30	2,203.9	-5.7	-5.5	-5.7	0.47	0.43	
2,300.0	0.40	80.60	2,299.9	-5.6	-4.6	-5.6	0.21	-0.21	
2,394.0	0.40	54.80	2,393.9	-5.3	-4.1	-5.3	0.19	0.00	
2,488.0	0.10	119.80	2,487.9	-5.2	-3.7	-5.2	0.39	-0.32	
2,583.0	0.20	22.60	2,582.9	-5.1	-3.6	-5.1	0.25	0.11	
2,678.0	0.30	16.70	2,677.9	-4.7	-3.4	-4.7	0.11	0.11	
2,773.0	0.40	332.50	2,772.8	-4.2	-3.5	-4.2	0.29	0.11	
2,867.0	0.40	321.30	2,866.8	-3.6	-3.9	-3.6	0.08	0.00	
2,962.0	0.30	346.90	2,961.8	-3.1	-4.1	-3.1	0.19	-0.11	
3,056.0	0.60	321.00	3,055.8	-2.5	-4.5	-2.5	0.38	0.32	
3,151.0	0.80	346.70	3,150.8	-1.4	-5.0	-1.4	0.39	0.21	
3,245.0	1.10	29.00	3,244.8	0.0	-4.7	0.0	0.79	0.32	
3,340.0	1.00	17.70	3,339.8	1.6	-4.0	1.6	0.24	-0.11	
3,434.0	0.70	25.70	3,433.8	2.9	-3.5	2.9	0.34	-0.32	
3,528.0	0.60	10.50	3,527.8	3.9	-3.2	3.9	0.21	-0.11	
3,623.0	0.50	24.90	3,622.8	4.7	-2.9	4.7	0.18	-0.11	
3,718.0	0.40	354.20	3,717.8	5.4	-2.7	5.4	0.27	-0.11	
3,812.0	0.40	63.90	3,811.8	5.9	-2.5	5.9	0.49	0.00	
3,907.0	0.90	173.60	3,906.8	5.3	-2.1	5.3	1.16	0.53	
4,001.0	0.70	194.00	4,000.8	4.0	-2.2	4.0	0.37	-0.21	
4,095.0	0.90	224.10	4,094.8	2.9	-2.8	2.9	0.49	0.21	
4,190.0	0.70	257.30	4,189.8	2.3	-3.9	2.3	0.52	-0.21	
4,285.0	0.80	241.60	4,284.7	1.8	-5.1	1.8	0.24	0.11	
4,379.0	1.00	248.50	4,378.7	1.2	-6.4	1.2	0.24	0.21	
4,474.0	1.00	254.90	4,473.7	0.7	-8.0	0.7	0.12	0.00	
4,572.0	0.70	254.10	4,571.7	0.3	-9.4	0.3	0.31	-0.31	
4,667.0	0.30	169.00	4,666.7	-0.1	-9.9	-0.1	0.78	-0.42	
4,761.0	0.20	81.70	4,760.7	-0.3	-9.7	-0.3	0.38	-0.11	
4,856.0	1.10	163.90	4,855.7	-1.2	-9.2	-1.2	1.15	0.95	
4,950.0	0.60	160.20	4,949.7	-2.5	-8.8	-2.5	0.53	-0.53	
5,044.0	0.80	162.30	5,043.7	-3.6	-8.5	-3.6	0.21	0.21	
5,139.0	1.80	142.80	5,138.7	-5.4	-7.4	-5.4	1.14	1.05	
5,233.0	1.50	146.20	5,232.6	-7.6	-5.8	-7.6	0.34	-0.32	
5,328.0	1.20	145.70	5,327.6	-9.5	-4.5	-9.5	0.32	-0.32	
5,422.0	0.90	134.50	5,421.6	-10.8	-3.5	-10.8	0.39	-0.32	
5,517.0	2.30	185.40	5,516.5	-13.2	-3.1	-13.2	1.97	1.47	
5,612.0	2.80	185.60	5,611.4	-17.4	-3.5	-17.4	0.53	0.53	
5,706.0	3.30	185.20	5,705.3	-22.4	-4.0	-22.4	0.53	0.53	
5,801.0	4.60	186.90	5,800.1	-28.9	-4.7	-28.9	1.37	1.37	
5,895.0	6.50	191.20	5,893.6	-37.9	-6.2	-37.9	2.07	2.02	
5,990.0	4.90	208.20	5,988.2	-46.7	-9.1	-46.7	2.43	-1.68	
6,085.0	3.90	207.90	6,082.9	-53.1	-12.6	-53.1	1.05	-1.05	
6,179.0	4.60	199.70	6,176.6	-59.5	-15.3	-59.5	0.98	0.74	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Salisbury 2E-14H-C268
Project:	DJ Wattenberg	TVD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Well:	Grant Salisbury 2E-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
6,274.0	5.30	196.80	6,271.3	-67.3	-17.9	-67.3	0.78	0.74	
6,368.0	6.20	199.50	6,364.8	-76.2	-20.8	-76.2	1.00	0.96	
6,463.0	4.90	198.60	6,459.4	-84.9	-23.8	-84.9	1.37	-1.37	
6,510.0	2.40	282.70	6,506.3	-86.6	-25.4	-86.6	11.12	-5.32	
6,558.0	4.70	354.60	6,554.2	-84.4	-26.6	-84.4	9.51	4.79	
6,605.0	7.70	1.40	6,600.9	-79.4	-26.7	-79.4	6.56	6.38	
6,652.0	11.60	359.00	6,647.3	-71.5	-26.7	-71.5	8.34	8.30	
6,699.0	16.30	358.50	6,692.9	-60.2	-27.0	-60.2	10.00	10.00	
6,746.0	19.50	359.30	6,737.6	-45.7	-27.2	-45.7	6.83	6.81	
6,793.0	21.30	356.90	6,781.6	-29.4	-27.8	-29.4	4.22	3.83	
6,841.0	24.20	355.90	6,825.9	-10.8	-29.0	-10.8	6.09	6.04	
6,888.0	27.60	356.90	6,868.2	9.6	-30.2	9.6	7.29	7.23	
6,935.0	33.50	359.50	6,908.6	33.5	-30.9	33.5	12.86	12.55	
6,982.0	38.30	358.10	6,946.7	61.1	-31.5	61.1	10.36	10.21	
7,030.0	41.30	356.70	6,983.6	91.7	-32.9	91.7	6.52	6.25	
7,077.0	44.30	356.40	7,018.0	123.6	-34.9	123.6	6.40	6.38	
7,125.0	47.10	357.40	7,051.6	157.9	-36.7	157.9	6.02	5.83	
7,172.0	52.00	359.40	7,082.0	193.7	-37.7	193.7	10.92	10.43	
7,220.0	55.20	0.70	7,110.5	232.3	-37.7	232.3	7.01	6.67	
7,267.0	57.70	359.80	7,136.5	271.4	-37.5	271.4	5.55	5.32	
7,314.0	60.70	359.20	7,160.6	311.8	-37.8	311.8	6.48	6.38	
7,361.0	66.50	358.00	7,181.5	353.9	-38.9	353.9	12.55	12.34	
7,408.0	70.60	358.20	7,198.6	397.6	-40.3	397.6	8.73	8.72	
7,455.0	73.40	359.10	7,213.2	442.3	-41.4	442.3	6.23	5.96	
7,503.0	75.90	359.00	7,225.9	488.6	-42.1	488.6	5.21	5.21	
7,550.0	79.90	358.50	7,235.7	534.5	-43.2	534.5	8.57	8.51	
7,598.0	83.20	358.40	7,242.8	581.9	-44.4	581.9	6.88	6.87	
7,645.0	87.50	359.80	7,246.6	628.8	-45.2	628.8	9.62	9.15	
7,661.0	88.70	0.20	7,247.1	644.8	-45.2	644.8	7.91	7.50	
7,704.0	89.70	1.30	7,247.7	687.8	-44.6	687.8	3.46	2.33	
7,798.0	90.70	359.20	7,247.4	781.7	-44.2	781.7	2.47	1.06	
7,891.0	91.70	359.30	7,245.4	874.7	-45.4	874.7	1.08	1.08	
7,985.0	90.30	359.00	7,243.8	968.7	-46.8	968.7	1.52	-1.49	
8,078.0	91.10	359.30	7,242.7	1,061.7	-48.2	1,061.7	0.92	0.86	
8,172.0	90.50	359.10	7,241.3	1,155.7	-49.5	1,155.7	0.67	-0.64	
8,265.0	90.80	358.90	7,240.3	1,248.6	-51.1	1,248.6	0.39	0.32	
8,359.0	92.00	359.00	7,238.0	1,342.6	-52.8	1,342.6	1.28	1.28	
8,452.0	92.70	0.20	7,234.2	1,435.5	-53.5	1,435.5	1.49	0.75	
8,546.0	91.60	0.90	7,230.7	1,529.4	-52.6	1,529.4	1.39	-1.17	
8,639.0	90.40	1.70	7,229.0	1,622.4	-50.5	1,622.4	1.55	-1.29	
8,733.0	89.80	0.90	7,228.9	1,716.4	-48.4	1,716.4	1.06	-0.64	
8,826.0	90.10	0.40	7,228.9	1,809.4	-47.3	1,809.4	0.63	0.32	
8,920.0	90.20	0.30	7,228.7	1,903.4	-46.7	1,903.4	0.15	0.11	
9,013.0	90.80	359.60	7,227.9	1,996.4	-46.8	1,996.4	0.99	0.65	
9,107.0	91.70	359.50	7,225.8	2,090.3	-47.5	2,090.3	0.96	0.96	
9,201.0	89.30	359.70	7,225.0	2,184.3	-48.2	2,184.3	2.56	-2.55	
9,294.0	89.40	358.90	7,226.1	2,277.3	-49.3	2,277.3	0.87	0.11	
9,388.0	90.70	0.30	7,226.0	2,371.3	-50.0	2,371.3	2.03	1.38	
9,481.0	89.10	1.40	7,226.2	2,464.3	-48.6	2,464.3	2.09	-1.72	
9,576.0	90.30	0.90	7,226.7	2,559.3	-46.7	2,559.3	1.37	1.26	
9,670.0	91.10	0.30	7,225.5	2,653.2	-45.7	2,653.2	1.06	0.85	
9,765.0	90.60	1.40	7,224.1	2,748.2	-44.3	2,748.2	1.27	-0.53	
9,859.0	89.70	1.60	7,223.9	2,842.2	-41.9	2,842.2	0.98	-0.96	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Salisbury 2E-14H-C268
Project:	DJ Wattenberg	TVD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Well:	Grant Salisbury 2E-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
9,953.0	90.90	0.50	7,223.4	2,936.2	-40.1	2,936.2	1.73	1.28	
10,048.0	89.90	0.30	7,222.7	3,031.2	-39.5	3,031.2	1.07	-1.05	
10,142.0	91.10	0.80	7,221.9	3,125.2	-38.6	3,125.2	1.38	1.28	
10,237.0	89.90	1.20	7,221.0	3,220.1	-36.9	3,220.1	1.33	-1.26	
10,331.0	90.50	359.80	7,220.7	3,314.1	-36.1	3,314.1	1.62	0.64	
10,425.0	90.00	359.90	7,220.3	3,408.1	-36.3	3,408.1	0.54	-0.53	
10,520.0	89.00	1.90	7,221.1	3,503.1	-34.8	3,503.1	2.35	-1.05	
10,614.0	89.30	1.10	7,222.5	3,597.1	-32.4	3,597.1	0.91	0.32	
10,709.0	89.80	0.30	7,223.3	3,692.0	-31.2	3,692.0	0.99	0.53	
10,803.0	89.80	1.80	7,223.6	3,786.0	-29.5	3,786.0	1.60	0.00	
10,897.0	89.80	1.50	7,223.9	3,880.0	-26.8	3,880.0	0.32	0.00	
10,992.0	89.60	1.00	7,224.4	3,975.0	-24.7	3,975.0	0.57	-0.21	
11,086.0	90.90	1.60	7,224.0	4,068.9	-22.6	4,068.9	1.52	1.38	
11,181.0	90.50	0.90	7,222.9	4,163.9	-20.5	4,163.9	0.85	-0.42	
11,275.0	91.90	2.20	7,220.9	4,257.8	-18.0	4,257.8	2.03	1.49	
11,369.0	92.00	1.60	7,217.7	4,351.7	-14.9	4,351.7	0.65	0.11	
11,464.0	90.10	2.10	7,216.0	4,446.7	-11.8	4,446.7	2.07	-2.00	
11,558.0	89.60	1.30	7,216.2	4,540.6	-9.0	4,540.6	1.00	-0.53	
11,653.0	89.30	0.90	7,217.1	4,635.6	-7.2	4,635.6	0.53	-0.32	
11,747.0	89.80	1.60	7,217.8	4,729.6	-5.1	4,729.6	0.92	0.53	
11,842.0	91.50	2.90	7,216.8	4,824.5	-1.4	4,824.5	2.25	1.79	
11,937.0	91.30	2.40	7,214.4	4,919.4	3.0	4,919.4	0.57	-0.21	
12,031.0	92.30	2.60	7,211.5	5,013.2	7.1	5,013.2	1.08	1.06	
12,126.0	90.90	0.60	7,208.8	5,108.2	9.7	5,108.2	2.57	-1.47	
12,219.0	89.00	0.00	7,208.9	5,201.1	10.2	5,201.1	2.14	-2.04	
12,314.0	89.00	356.40	7,210.6	5,296.1	7.2	5,296.1	3.79	0.00	
12,409.0	89.10	357.10	7,212.2	5,390.9	1.9	5,390.9	0.74	0.11	
12,503.0	89.40	356.70	7,213.4	5,484.8	-3.2	5,484.8	0.53	0.32	
12,598.0	89.60	355.60	7,214.2	5,579.5	-9.6	5,579.5	1.18	0.21	
12,692.0	89.90	356.00	7,214.6	5,673.3	-16.5	5,673.3	0.53	0.32	
12,786.0	90.90	355.80	7,214.0	5,767.0	-23.2	5,767.0	1.08	1.06	
12,881.0	91.70	356.10	7,211.8	5,861.8	-29.9	5,861.8	0.90	0.84	
12,975.0	92.00	356.00	7,208.8	5,955.5	-36.4	5,955.5	0.34	0.32	
13,070.0	92.10	356.20	7,205.4	6,050.2	-42.8	6,050.2	0.24	0.11	
13,116.0	93.00	355.40	7,203.3	6,096.0	-46.2	6,096.0	2.62	1.96	Last CES Survey @ 13,116' MD
13,166.0	93.00	355.40	7,200.7	6,145.8	-50.2	6,145.8	0.00	0.00	PTB @ 13,166'

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Salisbury 2E-14H-C268
Project:	DJ Wattenberg	TVD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Well:	Grant Salisbury 2E-14H-C268	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	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)		
Grant Salisbury 2E-14H-	0.00	0.00	7,230.0	1,942.7	-53.1	1,297,079.56	3,147,072.30	40.147673	-104.973910
- actual wellpath misses target center by 6.7ft at 8959.4ft MD (7228.5 TVD, 1942.7 N, -46.6 E)									
- Point									
Grant Salisbury 2E-14H-	0.00	0.00	800.0	-10.0	-3.7	1,295,127.14	3,147,133.34	40.142312	-104.973733
- actual wellpath misses target center by 7.2ft at 800.1ft MD (800.0 TVD, -4.8 N, -8.6 E)									
- Point									
Grant Salisbury 2E-14H-	0.00	0.00	7,270.0	742.7	-53.1	1,295,879.58	3,147,079.42	40.144379	-104.973910
- actual wellpath misses target center by 24.1ft at 7758.9ft MD (7247.7 TVD, 742.6 N, -44.0 E)									
- Point									
Grant Salisbury 2E-14H-	0.00	0.00	7,240.0	3,822.3	-53.1	1,298,959.08	3,147,061.14	40.152833	-104.973910
- actual wellpath misses target center by 29.6ft at 10838.6ft MD (7223.7 TVD, 3821.6 N, -28.4 E)									
- Point									
Grant Salisbury 2E-14H-	0.00	0.00	7,210.0	6,196.4	-53.1	1,301,333.18	3,147,047.05	40.159350	-104.973910
- actual wellpath misses target center by 51.6ft at 13166.0ft MD (7200.7 TVD, 6145.8 N, -50.2 E)									
- Point									
Grant Salisbury 2E-14H-	0.00	0.00	7,240.0	6,196.4	-53.1	1,301,333.18	3,147,047.05	40.159350	-104.973910
- actual wellpath misses target center by 64.2ft at 13166.0ft MD (7200.7 TVD, 6145.8 N, -50.2 E)									
- Point									
Grant Salisbury 2E-14H-	0.00	0.00	7,223.5	6,196.4	-53.1	1,301,333.18	3,147,047.05	40.159350	-104.973910
- actual wellpath misses target center by 55.6ft at 13166.0ft MD (7200.7 TVD, 6145.8 N, -50.2 E)									
- Point									
Grant Salisbury 2E-14H-	0.00	0.00	7,213.9	5,354.0	-4.0	1,300,491.05	3,147,101.15	40.157037	-104.973734
- actual wellpath misses target center by 8.1ft at 12372.5ft MD (7211.6 TVD, 5354.5 N, 3.8 E)									
- Point									

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	Comment	
13,116.0	7,203.3	6,096.0	-46.2	Last CES Survey @ 13,116' MD	
13,166.0	7,200.7	6,145.8	-50.2	PTB @ 13,166'	

Checked By: _____ Approved By: _____ Date: _____

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

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

Grant Salisbury 2E-14H-C268

Hz

Design: FINAL

Survey Report - Geographic

24 September, 2014

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Salisbury 2E-14H-C268
Project:	DJ Wattenberg	TVD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Well:	Grant Salisbury 2E-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 Salisbury 2E-14H-C268					
Well Position	+N/-S	0.0 ft	Northing:	1,295,137.17 ft	Latitude:	40.142340
	+E/-W	0.0 ft	Easting:	3,147,136.93 ft	Longitude:	-104.973720
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,886.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/11/2014	8.52	66.70	52,632

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	0.00	

Survey Program	Date	9/24/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
140.0	13,166.0	Survey #1 (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	1,295,137.17	3,147,136.93	40.142340	-104.973720	
140.0	0.60	317.60	140.0	0.5	-0.5	1,295,137.70	3,147,136.43	40.142342	-104.973722	
234.0	1.00	260.80	234.0	0.8	-1.6	1,295,137.93	3,147,135.29	40.142342	-104.973726	
327.0	1.10	270.20	327.0	0.6	-3.3	1,295,137.79	3,147,133.60	40.142342	-104.973732	
421.0	1.10	228.50	421.0	0.1	-4.9	1,295,137.19	3,147,132.02	40.142340	-104.973738	
514.0	1.10	199.50	513.9	-1.4	-5.9	1,295,135.75	3,147,131.06	40.142336	-104.973741	
608.0	1.20	225.20	607.9	-2.9	-6.9	1,295,134.20	3,147,130.07	40.142332	-104.973745	
702.0	0.60	223.60	701.9	-4.0	-7.9	1,295,133.14	3,147,129.04	40.142329	-104.973749	
795.0	0.60	215.20	794.9	-4.7	-8.5	1,295,132.39	3,147,128.43	40.142327	-104.973751	
870.0	0.20	317.60	869.9	-4.9	-8.8	1,295,132.16	3,147,128.12	40.142326	-104.973752	
988.0	0.30	31.50	987.9	-4.5	-8.8	1,295,132.58	3,147,128.14	40.142328	-104.973752	
1,082.0	0.30	348.90	1,081.9	-4.1	-8.7	1,295,133.03	3,147,128.21	40.142329	-104.973752	

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Salisbury 2E-14H-C268
Project:	DJ Wattenberg	TVD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Well:	Grant Salisbury 2E-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
1,175.0	0.10	5.50	1,174.9	-3.8	-8.8	1,295,133.35	3,147,128.17	40.142330	-104.973752
1,269.0	0.10	309.30	1,268.9	-3.6	-8.8	1,295,133.48	3,147,128.12	40.142330	-104.973752
1,362.0	0.40	325.50	1,361.9	-3.3	-9.1	1,295,133.80	3,147,127.87	40.142331	-104.973753
1,456.0	0.90	170.30	1,455.9	-3.8	-9.1	1,295,133.34	3,147,127.81	40.142330	-104.973753
1,550.0	1.00	172.00	1,549.9	-5.3	-8.9	1,295,131.80	3,147,128.06	40.142325	-104.973752
1,643.0	0.90	302.80	1,642.9	-5.7	-9.4	1,295,131.39	3,147,127.56	40.142324	-104.973754
1,737.0	0.80	93.00	1,736.9	-5.4	-9.4	1,295,131.76	3,147,127.59	40.142325	-104.973754
1,830.0	0.80	103.80	1,829.9	-5.5	-8.1	1,295,131.58	3,147,128.87	40.142325	-104.973749
1,924.0	0.60	107.90	1,923.9	-5.8	-7.0	1,295,131.28	3,147,129.98	40.142324	-104.973745
2,017.0	0.20	92.70	2,016.9	-6.0	-6.4	1,295,131.12	3,147,130.61	40.142324	-104.973743
2,111.0	0.20	49.40	2,110.9	-5.9	-6.1	1,295,131.22	3,147,130.89	40.142324	-104.973742
2,204.0	0.60	80.30	2,203.9	-5.7	-5.5	1,295,131.42	3,147,131.50	40.142324	-104.973740
2,300.0	0.40	80.60	2,299.9	-5.6	-4.6	1,295,131.56	3,147,132.32	40.142325	-104.973737
2,394.0	0.40	54.80	2,393.9	-5.3	-4.1	1,295,131.81	3,147,132.91	40.142325	-104.973735
2,488.0	0.10	119.80	2,487.9	-5.2	-3.7	1,295,131.96	3,147,133.25	40.142326	-104.973734
2,583.0	0.20	22.60	2,582.9	-5.1	-3.6	1,295,132.07	3,147,133.38	40.142326	-104.973733
2,678.0	0.30	16.70	2,677.9	-4.7	-3.4	1,295,132.46	3,147,133.52	40.142327	-104.973733
2,773.0	0.40	332.50	2,772.8	-4.2	-3.5	1,295,132.99	3,147,133.43	40.142329	-104.973733
2,867.0	0.40	321.30	2,866.8	-3.6	-3.9	1,295,133.54	3,147,133.07	40.142330	-104.973734
2,962.0	0.30	346.90	2,961.8	-3.1	-4.1	1,295,134.04	3,147,132.81	40.142332	-104.973735
3,056.0	0.60	321.00	3,055.8	-2.5	-4.5	1,295,134.66	3,147,132.44	40.142333	-104.973736
3,151.0	0.80	346.70	3,150.8	-1.4	-5.0	1,295,135.69	3,147,131.97	40.142336	-104.973738
3,245.0	1.10	29.00	3,244.8	0.0	-4.7	1,295,137.12	3,147,132.24	40.142340	-104.973737
3,340.0	1.00	17.70	3,339.8	1.6	-4.0	1,295,138.71	3,147,132.93	40.142344	-104.973735
3,434.0	0.70	25.70	3,433.8	2.9	-3.5	1,295,140.01	3,147,133.42	40.142348	-104.973733
3,528.0	0.60	10.50	3,527.8	3.9	-3.2	1,295,141.01	3,147,133.75	40.142351	-104.973732
3,623.0	0.50	24.90	3,622.8	4.7	-2.9	1,295,141.88	3,147,134.01	40.142353	-104.973731
3,718.0	0.40	354.20	3,717.8	5.4	-2.7	1,295,142.59	3,147,134.15	40.142355	-104.973730
3,812.0	0.40	63.90	3,811.8	5.9	-2.5	1,295,143.06	3,147,134.41	40.142356	-104.973729
3,907.0	0.90	173.60	3,906.8	5.3	-2.1	1,295,142.47	3,147,134.79	40.142355	-104.973728
4,001.0	0.70	194.00	4,000.8	4.0	-2.2	1,295,141.17	3,147,134.74	40.142351	-104.973728
4,095.0	0.90	224.10	4,094.8	2.9	-2.8	1,295,140.08	3,147,134.10	40.142348	-104.973730
4,190.0	0.70	257.30	4,189.8	2.3	-3.9	1,295,139.41	3,147,133.01	40.142346	-104.973734
4,285.0	0.80	241.60	4,284.7	1.8	-5.1	1,295,138.96	3,147,131.87	40.142345	-104.973738
4,379.0	1.00	248.50	4,378.7	1.2	-6.4	1,295,138.34	3,147,130.53	40.142343	-104.973743
4,474.0	1.00	254.90	4,473.7	0.7	-8.0	1,295,137.81	3,147,128.96	40.142342	-104.973749
4,572.0	0.70	254.10	4,571.7	0.3	-9.4	1,295,137.42	3,147,127.56	40.142341	-104.973754
4,667.0	0.30	169.00	4,666.7	-0.1	-9.9	1,295,137.01	3,147,127.06	40.142340	-104.973756
4,761.0	0.20	81.70	4,760.7	-0.3	-9.7	1,295,136.80	3,147,127.27	40.142339	-104.973755
4,856.0	1.10	163.90	4,855.7	-1.2	-9.2	1,295,135.95	3,147,127.69	40.142337	-104.973753
4,950.0	0.60	160.20	4,949.7	-2.5	-8.8	1,295,134.62	3,147,128.11	40.142333	-104.973752
5,044.0	0.80	162.30	5,043.7	-3.6	-8.5	1,295,133.53	3,147,128.49	40.142330	-104.973751
5,139.0	1.80	142.80	5,138.7	-5.4	-7.4	1,295,131.72	3,147,129.60	40.142325	-104.973747
5,233.0	1.50	146.20	5,232.6	-7.6	-5.8	1,295,129.53	3,147,131.19	40.142319	-104.973741
5,328.0	1.20	145.70	5,327.6	-9.5	-4.5	1,295,127.68	3,147,132.45	40.142314	-104.973736
5,422.0	0.90	134.50	5,421.6	-10.8	-3.5	1,295,126.36	3,147,133.54	40.142310	-104.973733
5,517.0	2.30	185.40	5,516.5	-13.2	-3.1	1,295,123.94	3,147,133.91	40.142304	-104.973731
5,612.0	2.80	185.60	5,611.4	-17.4	-3.5	1,295,119.73	3,147,133.53	40.142292	-104.973733
5,706.0	3.30	185.20	5,705.3	-22.4	-4.0	1,295,114.75	3,147,133.09	40.142279	-104.973734
5,801.0	4.60	186.90	5,800.1	-28.9	-4.7	1,295,108.24	3,147,132.42	40.142261	-104.973737
5,895.0	6.50	191.20	5,893.6	-37.9	-6.2	1,295,099.27	3,147,130.99	40.142236	-104.973742
5,990.0	4.90	208.20	5,988.2	-46.7	-9.1	1,295,090.40	3,147,128.08	40.142212	-104.973753
6,085.0	3.90	207.90	6,082.9	-53.1	-12.6	1,295,083.95	3,147,124.69	40.142194	-104.973765
6,179.0	4.60	199.70	6,176.6	-59.5	-15.3	1,295,077.56	3,147,121.96	40.142177	-104.973775
6,274.0	5.30	196.80	6,271.3	-67.3	-17.9	1,295,069.75	3,147,119.45	40.142155	-104.973784

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Salisbury 2E-14H-C268
Project:	DJ Wattenberg	TVD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Well:	Grant Salisbury 2E-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
6,368.0	6.20	199.50	6,364.8	-76.2	-20.8	1,295,060.80	3,147,116.56	40.142131	-104.973795
6,463.0	4.90	198.60	6,459.4	-84.9	-23.8	1,295,052.10	3,147,113.60	40.142107	-104.973806
6,510.0	2.40	282.70	6,506.3	-86.6	-25.4	1,295,050.40	3,147,112.01	40.142102	-104.973811
6,558.0	4.70	354.60	6,554.2	-84.4	-26.6	1,295,052.57	3,147,110.83	40.142108	-104.973815
6,605.0	7.70	1.40	6,600.9	-79.4	-26.7	1,295,057.64	3,147,110.70	40.142122	-104.973816
6,652.0	11.60	359.00	6,647.3	-71.5	-26.7	1,295,065.51	3,147,110.65	40.142144	-104.973816
6,699.0	16.30	358.50	6,692.9	-60.2	-27.0	1,295,076.84	3,147,110.32	40.142175	-104.973817
6,746.0	19.50	359.30	6,737.6	-45.7	-27.2	1,295,091.28	3,147,109.97	40.142215	-104.973818
6,793.0	21.30	356.90	6,781.6	-29.4	-27.8	1,295,107.64	3,147,109.31	40.142259	-104.973820
6,841.0	24.20	355.90	6,825.9	-10.8	-29.0	1,295,126.16	3,147,108.03	40.142310	-104.973824
6,888.0	27.60	356.90	6,868.2	9.6	-30.2	1,295,146.63	3,147,106.63	40.142367	-104.973828
6,935.0	33.50	359.50	6,908.6	33.5	-30.9	1,295,170.49	3,147,105.79	40.142432	-104.973831
6,982.0	38.30	358.10	6,946.7	61.1	-31.5	1,295,198.03	3,147,105.03	40.142508	-104.973833
7,030.0	41.30	356.70	6,983.6	91.7	-32.9	1,295,228.71	3,147,103.44	40.142592	-104.973838
7,077.0	44.30	356.40	7,018.0	123.6	-34.9	1,295,260.57	3,147,101.32	40.142679	-104.973845
7,125.0	47.10	357.40	7,051.6	157.9	-36.7	1,295,294.86	3,147,099.27	40.142774	-104.973852
7,172.0	52.00	359.40	7,082.0	193.7	-37.7	1,295,330.59	3,147,098.08	40.142872	-104.973855
7,220.0	55.20	0.70	7,110.5	232.3	-37.7	1,295,369.22	3,147,097.90	40.142978	-104.973855
7,267.0	57.70	359.80	7,136.5	271.4	-37.5	1,295,408.39	3,147,097.83	40.143085	-104.973854
7,314.0	60.70	359.20	7,160.6	311.8	-37.8	1,295,448.75	3,147,097.24	40.143196	-104.973856
7,361.0	66.50	358.00	7,181.5	353.9	-38.9	1,295,490.81	3,147,095.95	40.143311	-104.973859
7,408.0	70.60	358.20	7,198.6	397.6	-40.3	1,295,534.51	3,147,094.24	40.143431	-104.973865
7,455.0	73.40	359.10	7,213.2	442.3	-41.4	1,295,579.19	3,147,092.92	40.143554	-104.973868
7,503.0	75.90	359.00	7,225.9	488.6	-42.1	1,295,625.46	3,147,091.88	40.143681	-104.973871
7,550.0	79.90	358.50	7,235.7	534.5	-43.2	1,295,671.39	3,147,090.60	40.143807	-104.973875
7,598.0	83.20	358.40	7,242.8	581.9	-44.4	1,295,718.83	3,147,089.04	40.143938	-104.973879
7,645.0	87.50	359.80	7,246.6	628.8	-45.2	1,295,765.66	3,147,088.03	40.144066	-104.973882
7,661.0	88.70	0.20	7,247.1	644.8	-45.2	1,295,781.65	3,147,087.93	40.144110	-104.973882
7,704.0	89.70	1.30	7,247.7	687.8	-44.6	1,295,824.64	3,147,088.24	40.144228	-104.973880
7,798.0	90.70	359.20	7,247.4	781.7	-44.2	1,295,918.63	3,147,088.09	40.144486	-104.973878
7,891.0	91.70	359.30	7,245.4	874.7	-45.4	1,296,011.59	3,147,086.32	40.144741	-104.973883
7,985.0	90.30	359.00	7,243.8	968.7	-46.8	1,296,105.56	3,147,084.37	40.144999	-104.973888
8,078.0	91.10	359.30	7,242.7	1,061.7	-48.2	1,296,198.53	3,147,082.44	40.145254	-104.973893
8,172.0	90.50	359.10	7,241.3	1,155.7	-49.5	1,296,292.50	3,147,080.57	40.145512	-104.973897
8,265.0	90.80	358.90	7,240.3	1,248.6	-51.1	1,296,385.47	3,147,078.40	40.145768	-104.973903
8,359.0	92.00	359.00	7,238.0	1,342.6	-52.8	1,296,479.41	3,147,076.12	40.146026	-104.973909
8,452.0	92.70	0.20	7,234.2	1,435.5	-53.5	1,296,572.33	3,147,074.92	40.146281	-104.973912
8,546.0	91.60	0.90	7,230.7	1,529.4	-52.6	1,296,666.26	3,147,075.26	40.146539	-104.973908
8,639.0	90.40	1.70	7,229.0	1,622.4	-50.5	1,296,759.23	3,147,076.82	40.146794	-104.973901
8,733.0	89.80	0.90	7,228.9	1,716.4	-48.4	1,296,853.21	3,147,078.39	40.147052	-104.973893
8,826.0	90.10	0.40	7,228.9	1,809.4	-47.3	1,296,946.21	3,147,078.90	40.147307	-104.973889
8,920.0	90.20	0.30	7,228.7	1,903.4	-46.7	1,297,040.21	3,147,078.91	40.147565	-104.973887
9,013.0	90.80	359.60	7,227.9	1,996.4	-46.8	1,297,133.20	3,147,078.28	40.147820	-104.973888
9,107.0	91.70	359.50	7,225.8	2,090.3	-47.5	1,297,227.17	3,147,076.98	40.148078	-104.973890
9,201.0	89.30	359.70	7,225.0	2,184.3	-48.2	1,297,321.15	3,147,075.77	40.148336	-104.973893
9,294.0	89.40	358.90	7,226.1	2,277.3	-49.3	1,297,414.13	3,147,074.08	40.148592	-104.973897
9,388.0	90.70	0.30	7,226.0	2,371.3	-50.0	1,297,508.12	3,147,072.87	40.148850	-104.973899
9,481.0	89.10	1.40	7,226.2	2,464.3	-48.6	1,297,601.11	3,147,073.69	40.149105	-104.973894
9,576.0	90.30	0.90	7,226.7	2,559.3	-46.7	1,297,696.10	3,147,075.04	40.149366	-104.973887
9,670.0	91.10	0.30	7,225.5	2,653.2	-45.7	1,297,790.09	3,147,075.46	40.149624	-104.973884
9,765.0	90.60	1.40	7,224.1	2,748.2	-44.3	1,297,885.07	3,147,076.31	40.149884	-104.973879
9,859.0	89.70	1.60	7,223.9	2,842.2	-41.9	1,297,979.05	3,147,078.21	40.150142	-104.973870
9,953.0	90.90	0.50	7,223.4	2,936.2	-40.1	1,298,073.04	3,147,079.38	40.150400	-104.973864
10,048.0	89.90	0.30	7,222.7	3,031.2	-39.5	1,298,168.04	3,147,079.48	40.150661	-104.973861
10,142.0	91.10	0.80	7,221.9	3,125.2	-38.6	1,298,262.03	3,147,079.82	40.150919	-104.973858

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Salisbury 2E-14H-C268
Project:	DJ Wattenberg	TVD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Well:	Grant Salisbury 2E-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
10,237.0	89.90	1.20	7,221.0	3,220.1	-36.9	1,298,357.02	3,147,080.91	40.151180	-104.973852
10,331.0	90.50	359.80	7,220.7	3,314.1	-36.1	1,298,451.02	3,147,081.18	40.151438	-104.973849
10,425.0	90.00	359.90	7,220.3	3,408.1	-36.3	1,298,545.01	3,147,080.37	40.151696	-104.973850
10,520.0	89.00	1.90	7,221.1	3,503.1	-34.8	1,298,640.00	3,147,081.30	40.151957	-104.973845
10,614.0	89.30	1.10	7,222.5	3,597.1	-32.4	1,298,733.97	3,147,083.20	40.152214	-104.973836
10,709.0	89.80	0.30	7,223.3	3,692.0	-31.2	1,298,828.96	3,147,083.80	40.152475	-104.973832
10,803.0	89.80	1.80	7,223.6	3,786.0	-29.5	1,298,922.95	3,147,084.97	40.152733	-104.973826
10,897.0	89.80	1.50	7,223.9	3,880.0	-26.8	1,299,016.93	3,147,087.11	40.152991	-104.973816
10,992.0	89.60	1.00	7,224.4	3,975.0	-24.7	1,299,111.91	3,147,088.62	40.153252	-104.973809
11,086.0	90.90	1.60	7,224.0	4,068.9	-22.6	1,299,205.90	3,147,090.20	40.153510	-104.973801
11,181.0	90.50	0.90	7,222.9	4,163.9	-20.5	1,299,300.88	3,147,091.71	40.153771	-104.973794
11,275.0	91.90	2.20	7,220.9	4,257.8	-18.0	1,299,394.83	3,147,093.69	40.154028	-104.973785
11,369.0	92.00	1.60	7,217.7	4,351.7	-14.9	1,299,488.74	3,147,096.25	40.154286	-104.973773
11,464.0	90.10	2.10	7,216.0	4,446.7	-11.8	1,299,583.69	3,147,098.75	40.154547	-104.973762
11,558.0	89.60	1.30	7,216.2	4,540.6	-9.0	1,299,677.66	3,147,100.98	40.154805	-104.973752
11,653.0	89.30	0.90	7,217.1	4,635.6	-7.2	1,299,772.65	3,147,102.24	40.155065	-104.973746
11,747.0	89.80	1.60	7,217.8	4,729.6	-5.1	1,299,866.63	3,147,103.73	40.155323	-104.973739
11,842.0	91.50	2.90	7,216.8	4,824.5	-1.4	1,299,961.57	3,147,106.90	40.155584	-104.973725
11,937.0	91.30	2.40	7,214.4	4,919.4	3.0	1,300,056.46	3,147,110.73	40.155844	-104.973710
12,031.0	92.30	2.60	7,211.5	5,013.2	7.1	1,300,150.35	3,147,114.27	40.156102	-104.973695
12,126.0	90.90	0.60	7,208.8	5,108.1	9.7	1,300,245.28	3,147,116.36	40.156363	-104.973685
12,219.0	89.00	0.00	7,208.9	5,201.1	10.2	1,300,338.28	3,147,116.29	40.156618	-104.973684
12,314.0	89.00	356.40	7,210.6	5,296.1	7.2	1,300,433.18	3,147,112.75	40.156878	-104.973694
12,409.0	89.10	357.10	7,212.2	5,390.9	1.9	1,300,527.98	3,147,106.80	40.157139	-104.973714
12,503.0	89.40	356.70	7,213.4	5,484.8	-3.2	1,300,621.81	3,147,101.16	40.157396	-104.973732
12,598.0	89.60	355.60	7,214.2	5,579.5	-9.6	1,300,716.55	3,147,094.22	40.157657	-104.973755
12,692.0	89.90	356.00	7,214.6	5,673.3	-16.5	1,300,810.25	3,147,086.78	40.157914	-104.973779
12,786.0	90.90	355.80	7,214.0	5,767.0	-23.2	1,300,903.96	3,147,079.50	40.158171	-104.973803
12,881.0	91.70	356.10	7,211.8	5,861.8	-29.9	1,300,998.66	3,147,072.23	40.158431	-104.973827
12,975.0	92.00	356.00	7,208.8	5,955.5	-36.4	1,301,092.35	3,147,065.20	40.158689	-104.973850
13,070.0	92.10	356.20	7,205.4	6,050.2	-42.8	1,301,187.03	3,147,058.18	40.158949	-104.973874
13,116.0	93.00	355.40	7,203.3	6,096.0	-46.2	1,301,232.81	3,147,054.55	40.159074	-104.973886
Last CES Survey @ 13,116' MD									
13,166.0	93.00	355.40	7,200.7	6,145.8	-50.2	1,301,282.56	3,147,050.25	40.159211	-104.973900
PTB @ 13,166'									

Cathedral Energy Services

Survey Report - Geographic

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Grant Salisbury 2E-14H-C268
Project:	DJ Wattenberg	TVD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Site:	S14-T2N-R68W (Grant Elmquist/Salisbury/Hurt)	MD Reference:	28.5' KB @ 4914.5ft (Patt 272)
Well:	Grant Salisbury 2E-14H-C268	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Grant Salisbury 2E-14H- - actual wellpath misses target center by 7.2ft at 800.1ft MD (800.0 TVD, -4.8 N, -8.6 E) - Point	0.00	0.00	800.0	-10.0	-3.6	1,295,127.14	3,147,133.34	40.142313	-104.973733
Grant Salisbury 2E-14H- - actual wellpath misses target center by 51.6ft at 13166.0ft MD (7200.7 TVD, 6145.8 N, -50.2 E) - Point	0.00	0.00	7,210.0	6,196.4	-53.1	1,301,333.18	3,147,047.05	40.159350	-104.973910
Grant Salisbury 2E-14H- - actual wellpath misses target center by 8.1ft at 12372.5ft MD (7211.6 TVD, 5354.5 N, 3.8 E) - Point	0.00	0.00	7,213.9	5,354.0	-4.0	1,300,491.05	3,147,101.15	40.157037	-104.973735
Grant Salisbury 2E-14H- - actual wellpath misses target center by 6.7ft at 8959.4ft MD (7228.5 TVD, 1942.7 N, -46.6 E) - Point	0.00	0.00	7,230.0	1,942.7	-53.1	1,297,079.56	3,147,072.30	40.147673	-104.973910

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
13,116.0	7,203.3	6,096.0	-46.2	Last CES Survey @ 13,116' MD
13,166.0	7,200.7	6,145.8	-50.2	PTB @ 13,166'

Checked By: _____ Approved By: _____ Date: _____