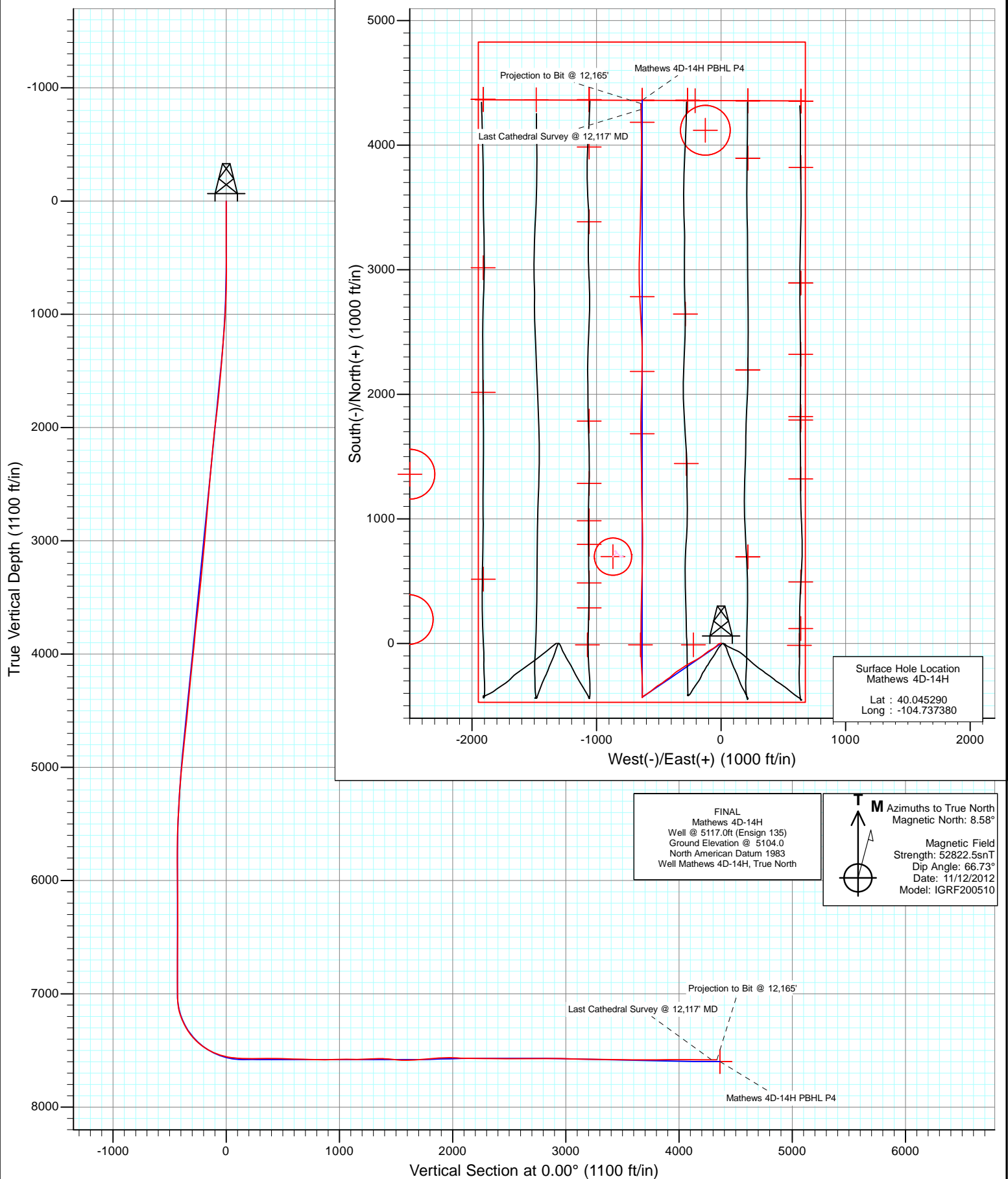


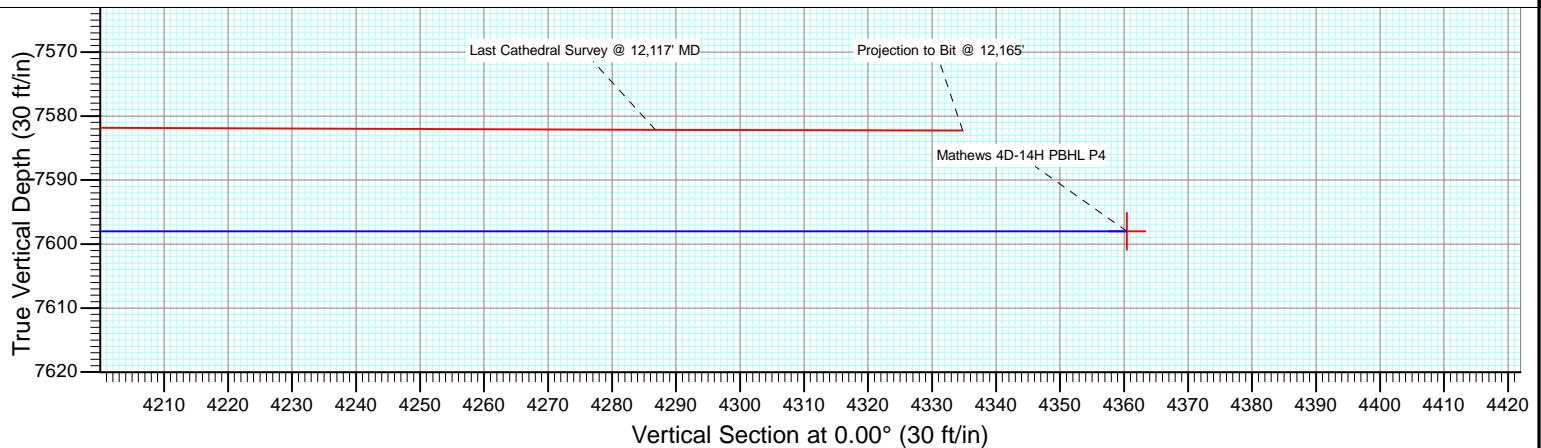
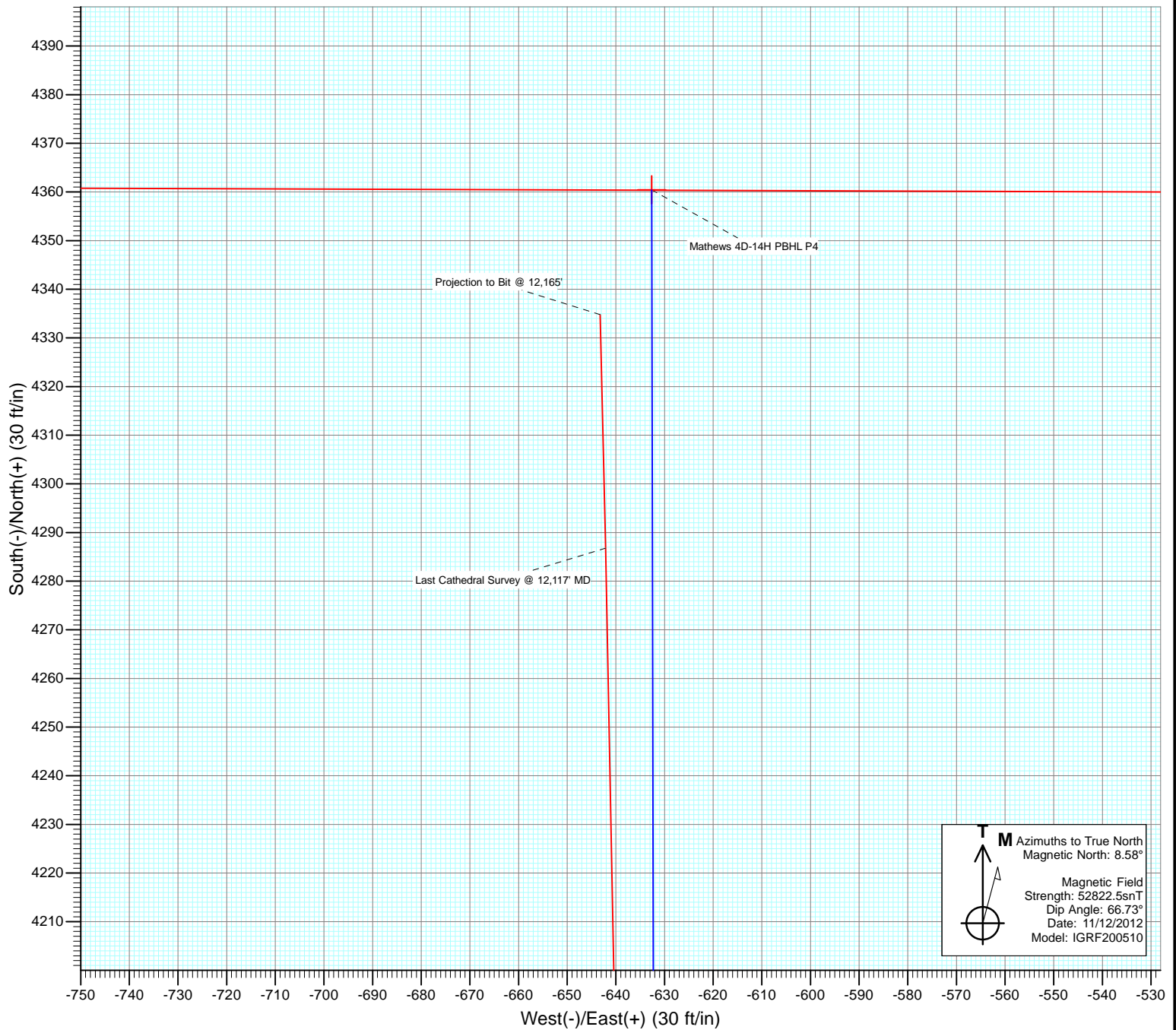


Project: DJ Wattenberg  
Site: S14 T1N-R66W (Mathews)  
Well: Mathews 4D-14H  
Wellbore: HZ  
Design: FINAL





Project: DJ Wattenberg  
Site: S14 T1N-R66W (Mathews)  
Well: Mathews 4D-14H  
Wellbore: HZ  
Design: FINAL



# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Mathews 4D-14H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	Well @ 5117.0ft (Ensign 135)
<b>Site:</b>	S14 T1N-R66W (Mathews)	<b>MD Reference:</b>	Well @ 5117.0ft (Ensign 135)
<b>Well:</b>	Mathews 4D-14H	<b>North Reference:</b>	True
<b>Wellbore:</b>	HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

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

Site		S14 T1N-R66W (Mathews)			
Site Position:		Northing:	1,260,084.79 ft	Latitude:	40.044810
From:	Lat/Long	Easting:	3,212,836.64 ft	Longitude:	-104.739800
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.49 °

Well	Mathews 4D-14H					
Well Position	+N/-S	0.0 ft	Northing:	1,260,265.43 ft	Latitude:	40.045290
	+E/-W	0.0 ft	Easting:	3,213,512.64 ft	Longitude:	-104.737380
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,104.0 ft

<b>Wellbore</b>	HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	11/12/2012	8.58	66.73	52,822

<b>Design</b>	FINAL				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	0.00	

<b>Survey Program</b>	<b>Date</b>	7/29/2013			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
170.0	12,165.0	Survey #1 (HZ)	Geolink MWD	Geolink MWD	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Formations / Comments</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
170.0	0.40	254.80	170.0	-0.2	-0.6	-0.2	0.24	0.24		
262.0	0.60	298.40	262.0	0.0	-1.3	0.0	0.45	0.22		
354.0	0.30	300.60	354.0	0.3	-1.9	0.3	0.33	-0.33		
446.0	0.30	343.50	446.0	0.7	-2.2	0.7	0.24	0.00		
537.0	1.10	302.20	537.0	1.4	-3.0	1.4	0.99	0.88		
629.0	1.80	259.00	629.0	1.6	-5.2	1.6	1.36	0.76		
721.0	2.70	258.30	720.9	0.9	-8.7	0.9	0.98	0.98		
813.0	3.50	241.40	812.8	-0.9	-13.3	-0.9	1.31	0.87		
905.0	3.80	237.20	904.6	-3.9	-18.3	-3.9	0.44	0.33		
997.0	5.10	226.70	996.3	-8.4	-23.9	-8.4	1.66	1.41		
1,089.0	6.50	224.90	1,087.8	-14.9	-30.5	-14.9	1.53	1.52		
1,181.0	7.40	231.70	1,179.1	-22.2	-38.9	-22.2	1.32	0.98		

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Mathews 4D-14H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	Well @ 5117.0ft (Ensign 135)
<b>Site:</b>	S14 T1N-R66W (Mathews)	<b>MD Reference:</b>	Well @ 5117.0ft (Ensign 135)
<b>Well:</b>	Mathews 4D-14H	<b>North Reference:</b>	True
<b>Wellbore:</b>	HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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
1,273.0	7.50	233.90	1,270.4	-29.4	-48.4	-29.4	0.33	0.11	
1,350.0	8.10	235.10	1,346.6	-35.5	-56.9	-35.5	0.81	0.78	
1,434.0	7.80	236.80	1,429.8	-42.0	-66.5	-42.0	0.45	-0.36	
1,496.0	8.70	240.80	1,491.2	-46.6	-74.1	-46.6	1.72	1.45	
1,588.0	10.20	241.80	1,581.9	-53.8	-87.4	-53.8	1.64	1.63	
1,680.0	10.40	234.60	1,672.5	-62.5	-101.3	-62.5	1.42	0.22	
1,772.0	9.90	231.60	1,763.0	-72.2	-114.3	-72.2	0.79	-0.54	
1,864.0	11.50	235.50	1,853.4	-82.3	-128.0	-82.3	1.91	1.74	
1,956.0	11.60	230.40	1,943.6	-93.4	-142.7	-93.4	1.11	0.11	
2,051.0	10.10	236.20	2,036.9	-104.1	-157.0	-104.1	1.95	-1.58	
2,145.0	10.20	238.40	2,129.4	-113.1	-170.9	-113.1	0.43	0.11	
2,240.0	9.80	234.40	2,223.0	-122.2	-184.7	-122.2	0.84	-0.42	
2,334.0	10.50	242.30	2,315.5	-130.8	-198.8	-130.8	1.66	0.74	
2,429.0	9.90	238.60	2,409.0	-139.1	-213.4	-139.1	0.93	-0.63	
2,524.0	11.10	243.10	2,502.4	-147.5	-228.5	-147.5	1.53	1.26	
2,619.0	10.00	241.80	2,595.8	-155.5	-244.0	-155.5	1.18	-1.16	
2,714.0	10.20	244.40	2,689.3	-163.1	-258.8	-163.1	0.52	0.21	
2,808.0	9.30	241.00	2,782.0	-170.4	-273.0	-170.4	1.14	-0.96	
2,903.0	9.10	233.80	2,875.7	-178.5	-285.7	-178.5	1.23	-0.21	
2,998.0	10.90	235.80	2,969.3	-188.0	-299.2	-188.0	1.93	1.89	
3,093.0	9.20	234.90	3,062.8	-197.4	-312.9	-197.4	1.80	-1.79	
3,188.0	8.00	233.70	3,156.8	-205.7	-324.4	-205.7	1.28	-1.26	
3,282.0	9.60	240.30	3,249.7	-213.5	-336.5	-213.5	2.01	1.70	
3,377.0	10.30	236.40	3,343.2	-222.1	-350.4	-222.1	1.02	0.74	
3,471.0	10.60	232.30	3,435.7	-232.0	-364.3	-232.0	0.85	0.32	
3,566.0	9.00	228.00	3,529.3	-242.3	-376.7	-242.3	1.85	-1.68	
3,661.0	10.10	227.30	3,623.0	-253.0	-388.4	-253.0	1.16	1.16	
3,755.0	9.70	230.90	3,715.6	-263.5	-400.6	-263.5	0.78	-0.43	
3,850.0	9.40	231.30	3,809.3	-273.4	-412.8	-273.4	0.32	-0.32	
3,945.0	9.50	235.40	3,903.0	-282.7	-425.3	-282.7	0.72	0.11	
4,040.0	10.50	238.40	3,996.5	-291.7	-439.2	-291.7	1.19	1.05	
4,135.0	9.50	228.30	4,090.1	-301.5	-452.4	-301.5	2.12	-1.05	
4,230.0	9.80	233.20	4,183.7	-311.5	-464.7	-311.5	0.92	0.32	
4,324.0	10.70	236.00	4,276.2	-321.2	-478.4	-321.2	1.09	0.96	
4,419.0	8.80	239.70	4,369.9	-329.8	-492.0	-329.8	2.10	-2.00	
4,514.0	10.00	238.50	4,463.6	-337.8	-505.3	-337.8	1.28	1.26	
4,608.0	10.20	231.90	4,556.1	-347.2	-518.8	-347.2	1.25	0.21	
4,703.0	8.80	232.80	4,649.8	-356.8	-531.2	-356.8	1.48	-1.47	
4,798.0	9.30	228.30	4,743.6	-366.3	-542.7	-366.3	0.91	0.53	
4,893.0	10.10	231.50	4,837.3	-376.6	-554.9	-376.6	1.02	0.84	
4,987.0	10.40	234.30	4,929.8	-386.6	-568.3	-386.6	0.62	0.32	
5,082.0	8.40	236.30	5,023.5	-395.5	-581.0	-395.5	2.13	-2.11	
5,177.0	9.30	236.50	5,117.4	-403.6	-593.2	-403.6	0.95	0.95	
5,272.0	7.10	238.60	5,211.4	-410.9	-604.6	-410.9	2.34	-2.32	
5,367.0	5.30	243.90	5,305.8	-415.9	-613.6	-415.9	1.99	-1.89	
5,461.0	5.80	230.60	5,399.4	-420.8	-621.1	-420.8	1.46	0.53	
5,556.0	4.60	225.90	5,494.0	-426.5	-627.6	-426.5	1.34	-1.26	
5,651.0	2.30	233.20	5,588.8	-430.3	-631.8	-430.3	2.46	-2.42	
5,745.0	1.50	231.10	5,682.8	-432.2	-634.3	-432.2	0.85	-0.85	
5,840.0	0.90	56.10	5,777.8	-432.6	-634.7	-432.6	2.52	-0.63	
5,935.0	1.30	43.60	5,872.8	-431.4	-633.3	-431.4	0.49	0.42	
6,030.0	0.40	73.50	5,967.7	-430.5	-632.2	-430.5	1.03	-0.95	
6,124.0	0.70	24.80	6,061.7	-429.9	-631.7	-429.9	0.56	0.32	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Mathews 4D-14H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	Well @ 5117.0ft (Ensign 135)
<b>Site:</b>	S14 T1N-R66W (Mathews)	<b>MD Reference:</b>	Well @ 5117.0ft (Ensign 135)
<b>Well:</b>	Mathews 4D-14H	<b>North Reference:</b>	True
<b>Wellbore:</b>	HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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
6,219.0	0.80	27.00	6,156.7	-428.8	-631.1	-428.8	0.11	0.11	
6,314.0	0.30	44.50	6,251.7	-428.0	-630.7	-428.0	0.55	-0.53	
6,408.0	1.10	248.30	6,345.7	-428.1	-631.3	-428.1	1.47	0.85	
6,503.0	0.70	208.40	6,440.7	-429.0	-632.4	-429.0	0.76	-0.42	
6,597.0	0.50	167.50	6,534.7	-429.9	-632.6	-429.9	0.49	-0.21	
6,692.0	0.50	142.00	6,629.7	-430.6	-632.3	-430.6	0.23	0.00	
6,787.0	0.40	102.80	6,724.7	-431.0	-631.7	-431.0	0.33	-0.11	
6,882.0	0.30	58.30	6,819.7	-431.0	-631.2	-431.0	0.30	-0.11	
6,976.0	1.10	284.60	6,913.7	-430.6	-631.8	-430.6	1.41	0.85	
7,071.0	0.80	320.80	7,008.7	-429.9	-633.1	-429.9	0.69	-0.32	
7,134.0	3.30	9.50	7,071.6	-427.7	-633.1	-427.7	4.50	3.97	
7,166.0	7.80	10.50	7,103.5	-424.7	-632.6	-424.7	14.07	14.06	
7,197.0	11.90	8.30	7,134.0	-419.5	-631.7	-419.5	13.28	13.23	
7,229.0	15.60	4.00	7,165.1	-411.9	-630.9	-411.9	11.99	11.56	
7,261.0	19.40	1.00	7,195.6	-402.3	-630.6	-402.3	12.20	11.87	
7,292.0	22.50	0.00	7,224.6	-391.2	-630.5	-391.2	10.07	10.00	
7,324.0	25.20	0.50	7,253.8	-378.3	-630.4	-378.3	8.46	8.44	
7,355.0	27.90	0.50	7,281.5	-364.4	-630.3	-364.4	8.71	8.71	
7,387.0	31.20	0.20	7,309.4	-348.6	-630.2	-348.6	10.32	10.31	
7,418.0	34.20	359.30	7,335.5	-331.9	-630.3	-331.9	9.80	9.68	
7,450.0	38.00	357.90	7,361.3	-313.1	-630.7	-313.1	12.15	11.87	
7,481.0	40.80	356.40	7,385.3	-293.4	-631.7	-293.4	9.54	9.03	
7,513.0	45.00	355.40	7,408.7	-271.7	-633.3	-271.7	13.30	13.12	
7,544.0	48.20	355.70	7,430.0	-249.2	-635.0	-249.2	10.35	10.32	
7,576.0	52.50	356.50	7,450.4	-224.7	-636.7	-224.7	13.57	13.44	
7,608.0	55.10	357.20	7,469.3	-198.9	-638.1	-198.9	8.31	8.12	
7,639.0	59.20	357.90	7,486.1	-172.9	-639.2	-172.9	13.36	13.23	
7,671.0	62.10	359.20	7,501.8	-145.0	-639.9	-145.0	9.73	9.06	
7,702.0	65.70	359.50	7,515.4	-117.1	-640.2	-117.1	11.65	11.61	
7,734.0	68.40	359.90	7,527.9	-87.7	-640.4	-87.7	8.52	8.44	
7,766.0	71.40	359.80	7,538.9	-57.6	-640.5	-57.6	9.38	9.37	
7,797.0	74.50	359.60	7,548.0	-28.0	-640.6	-28.0	10.02	10.00	
7,829.0	77.90	358.90	7,555.6	3.1	-641.0	3.1	10.84	10.62	
7,848.0	81.10	359.40	7,559.1	21.7	-641.3	21.7	17.04	16.84	
7,941.0	86.30	0.20	7,569.3	114.1	-641.6	114.1	5.66	5.59	
8,004.0	88.30	0.40	7,572.3	177.1	-641.3	177.1	3.19	3.17	
8,067.0	90.60	0.80	7,572.9	240.1	-640.7	240.1	3.71	3.65	
8,131.0	91.20	0.90	7,571.9	304.0	-639.7	304.0	0.95	0.94	
8,225.0	89.70	1.90	7,571.1	398.0	-637.4	398.0	1.92	-1.60	
8,320.0	88.40	0.90	7,572.7	493.0	-635.1	493.0	1.73	-1.37	
8,415.0	87.80	0.70	7,575.9	587.9	-633.8	587.9	0.67	-0.63	
8,510.0	89.20	1.60	7,578.3	682.9	-631.9	682.9	1.75	1.47	
8,605.0	88.20	0.50	7,580.5	777.8	-630.1	777.8	1.56	-1.05	
8,699.0	89.50	0.30	7,582.4	871.8	-629.5	871.8	1.40	1.38	
8,794.0	94.20	357.60	7,579.3	966.7	-631.2	966.7	5.70	4.95	
8,889.0	87.40	358.90	7,578.0	1,061.6	-634.1	1,061.6	7.29	-7.16	
8,984.0	91.80	359.00	7,578.7	1,156.5	-635.8	1,156.5	4.63	4.63	
9,078.0	92.30	359.40	7,575.3	1,250.5	-637.1	1,250.5	0.68	0.53	
9,173.0	91.10	359.50	7,572.5	1,345.4	-638.1	1,345.4	1.27	-1.26	
9,268.0	84.50	359.60	7,576.1	1,440.3	-638.8	1,440.3	6.95	-6.95	
9,300.0	84.30	359.20	7,579.2	1,472.1	-639.1	1,472.1	1.39	-0.62	
9,331.0	84.90	359.30	7,582.2	1,503.0	-639.5	1,503.0	1.96	1.94	
9,363.0	86.50	358.70	7,584.6	1,534.9	-640.1	1,534.9	5.34	5.00	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Mathews 4D-14H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	Well @ 5117.0ft (Ensign 135)
<b>Site:</b>	S14 T1N-R66W (Mathews)	<b>MD Reference:</b>	Well @ 5117.0ft (Ensign 135)
<b>Well:</b>	Mathews 4D-14H	<b>North Reference:</b>	True
<b>Wellbore:</b>	HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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
9,394.0	89.50	358.80	7,585.6	1,565.9	-640.8	1,565.9	9.68	9.68	
9,457.0	91.60	358.90	7,585.0	1,628.8	-642.0	1,628.8	3.34	3.33	
9,521.0	93.70	359.50	7,582.1	1,692.8	-642.9	1,692.8	3.41	3.28	
9,584.0	95.00	0.10	7,577.3	1,755.6	-643.1	1,755.6	2.27	2.06	
9,615.0	95.30	359.80	7,574.5	1,786.5	-643.2	1,786.5	1.37	0.97	
9,647.0	95.80	0.40	7,571.4	1,818.3	-643.1	1,818.3	2.43	1.56	
9,710.0	94.80	2.30	7,565.6	1,881.0	-641.6	1,881.0	3.40	-1.59	
9,773.0	88.70	1.90	7,563.7	1,943.9	-639.3	1,943.9	9.70	-9.68	
9,836.0	88.20	1.50	7,565.4	2,006.9	-637.5	2,006.9	1.02	-0.79	
9,900.0	87.90	0.40	7,567.6	2,070.8	-636.4	2,070.8	1.78	-0.47	
9,963.0	88.70	0.90	7,569.4	2,133.8	-635.7	2,133.8	1.50	1.27	
10,026.0	89.40	1.70	7,570.5	2,196.8	-634.3	2,196.8	1.69	1.11	
10,121.0	90.20	0.50	7,570.8	2,291.7	-632.4	2,291.7	1.52	0.84	
10,215.0	89.00	357.90	7,571.5	2,385.7	-633.8	2,385.7	3.05	-1.28	
10,310.0	89.70	357.80	7,572.5	2,480.6	-637.3	2,480.6	0.74	0.74	
10,405.0	89.70	357.60	7,573.0	2,575.6	-641.1	2,575.6	0.21	0.00	
10,499.0	91.10	356.80	7,572.4	2,669.5	-645.7	2,669.5	1.72	1.49	
10,594.0	90.10	357.00	7,571.4	2,764.3	-650.9	2,764.3	1.07	-1.05	
10,689.0	90.40	357.80	7,571.0	2,859.2	-655.2	2,859.2	0.90	0.32	
10,784.0	88.60	0.00	7,571.8	2,954.2	-657.0	2,954.2	2.99	-1.89	
10,878.0	88.40	0.90	7,574.3	3,048.1	-656.3	3,048.1	0.98	-0.21	
10,973.0	88.70	1.80	7,576.7	3,143.1	-654.0	3,143.1	1.00	0.32	
11,068.0	89.10	1.20	7,578.5	3,238.0	-651.5	3,238.0	0.76	0.42	
11,162.0	89.80	1.80	7,579.4	3,332.0	-649.1	3,332.0	0.98	0.74	
11,257.0	88.60	2.00	7,580.7	3,426.9	-645.9	3,426.9	1.28	-1.26	
11,352.0	89.10	1.30	7,582.6	3,521.9	-643.2	3,521.9	0.91	0.53	
11,448.0	89.50	0.30	7,583.8	3,617.9	-641.8	3,617.9	1.12	0.42	
11,543.0	91.00	0.70	7,583.4	3,712.8	-641.0	3,712.8	1.63	1.58	
11,638.0	90.60	0.90	7,582.1	3,807.8	-639.7	3,807.8	0.47	-0.42	
11,733.0	90.40	0.10	7,581.2	3,902.8	-638.9	3,902.8	0.87	-0.21	
11,827.0	90.00	0.20	7,580.9	3,996.8	-638.6	3,996.8	0.44	-0.43	
11,922.0	89.60	359.40	7,581.2	4,091.8	-638.9	4,091.8	0.94	-0.42	
12,016.0	89.70	359.10	7,581.8	4,185.8	-640.2	4,185.8	0.34	0.11	
12,117.0	89.90	358.70	7,582.2	4,286.8	-642.1	4,286.8	0.44	0.20	Last Cathedral Survey @ 12,117' MD
12,165.0	89.90	358.70	7,582.2	4,334.8	-643.2	4,334.8	0.00	0.00	Projection to Bit @ 12,165'

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Mathews 4D-14H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	Well @ 5117.0ft (Ensign 135)
<b>Site:</b>	S14 T1N-R66W (Mathews)	<b>MD Reference:</b>	Well @ 5117.0ft (Ensign 135)
<b>Well:</b>	Mathews 4D-14H	<b>North Reference:</b>	True
<b>Wellbore:</b>	HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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									
Mathews 4D-14H PBHL	0.00	0.00	7,631.0	7,026.9	-627.0	1,267,286.71	3,212,825.28	40.064580	-104.739620
- actual wellpath misses target center by 2692.6ft at 12165.0ft MD (7582.2 TVD, 4334.8 N, -643.2 E)									
- Point									
Mathews 4D-14H 10600	0.00	0.00	7,569.0	2,783.2	-632.3	1,263,043.09	3,212,856.46	40.052930	-104.739639
- actual wellpath misses target center by 19.7ft at 10612.0ft MD (7571.3 TVD, 2782.3 N, -651.8 E)									
- Point									
Mathews 4D-14H 10000	0.00	0.00	7,569.0	2,183.2	-632.3	1,262,443.12	3,212,861.62	40.051283	-104.739639
- actual wellpath misses target center by 2.7ft at 10012.5ft MD (7570.3 TVD, 2183.2 N, -634.6 E)									
- Point									
Mathews 4D-14H 9500'	0.00	0.00	7,580.0	1,683.2	-632.3	1,261,943.13	3,212,865.92	40.049911	-104.739638
- actual wellpath misses target center by 10.9ft at 9511.4ft MD (7582.7 TVD, 1683.2 N, -642.8 E)									
- Point									
Mathews 4D-14H PBHL	0.00	0.00	7,598.0	4,360.4	-632.6	1,264,620.24	3,212,842.55	40.057260	-104.739640
- actual wellpath misses target center by 31.9ft at 12165.0ft MD (7582.2 TVD, 4334.8 N, -643.2 E)									
- Point									
Mathews 4D-14H 12000	0.00	0.00	7,598.0	4,183.2	-632.3	1,264,443.04	3,212,844.42	40.056773	-104.739639
- actual wellpath misses target center by 18.0ft at 12013.4ft MD (7581.8 TVD, 4183.2 N, -640.1 E)									
- Point									
Mathews 4D-14H FPP	0.00	0.00	7,631.0	-10.9	-646.7	1,260,248.97	3,212,866.03	40.045260	-104.739690
- actual wellpath misses target center by 76.9ft at 7829.1ft MD (7555.7 TVD, 3.2 N, -641.0 E)									
- Point									
Mathews 4D-14H PBHL	0.00	0.00	7,631.0	4,360.4	-632.6	1,264,620.24	3,212,842.55	40.057260	-104.739640
- actual wellpath misses target center by 56.1ft at 12165.0ft MD (7582.2 TVD, 4334.8 N, -643.2 E)									
- Point									

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	Comment	
12,117.0	7,582.2	4,286.8	-642.1	Last Cathedral Survey @ 12,117' MD	
12,165.0	7,582.2	4,334.8	-643.2	Projection to Bit @ 12,165'	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_