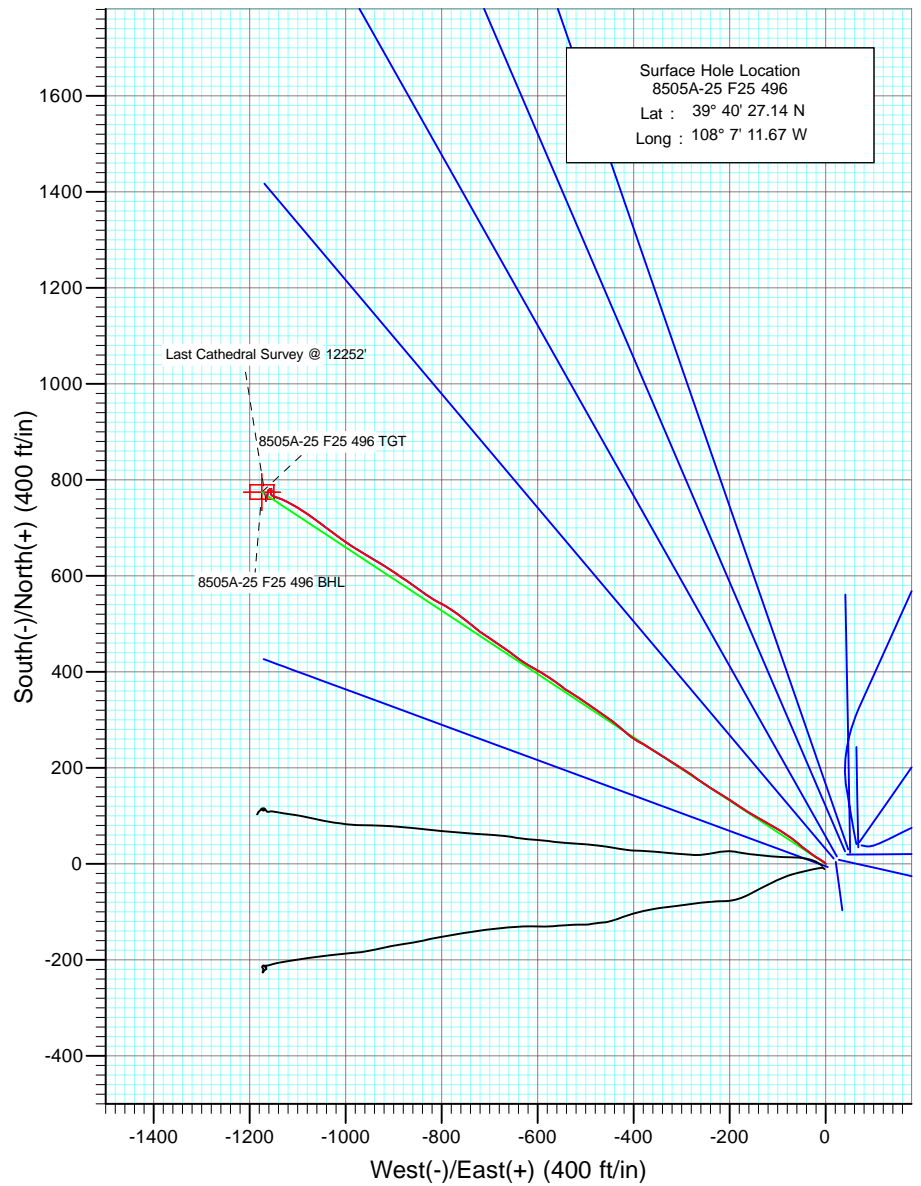
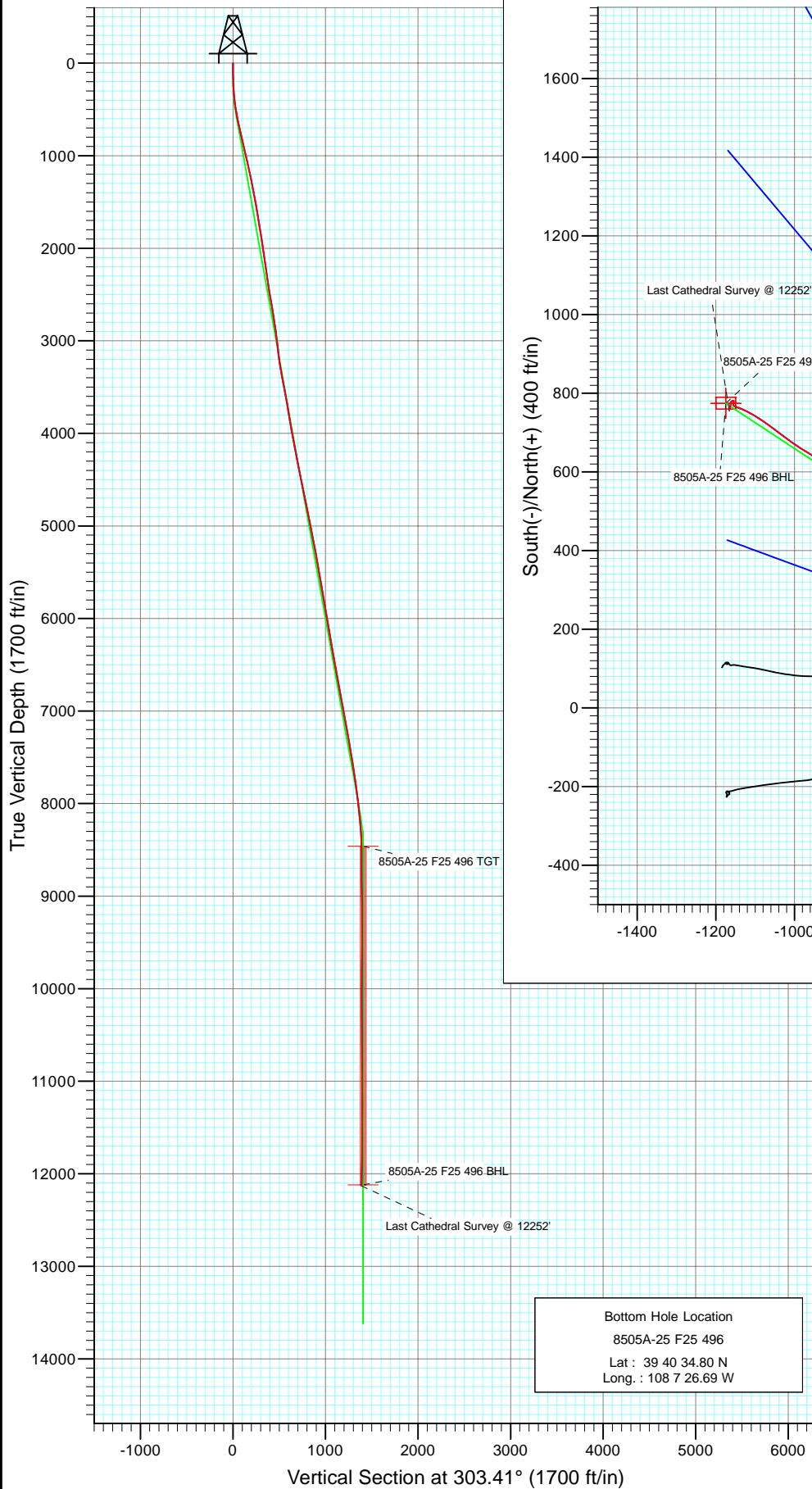




Project: Story Gulch  
 Site: F25 496  
 Well: 8505A-25 F25 496  
 Wellbore: DD  
 Design: Final Survey



Azimuths to True North  
 Magnetic North: 10.56°

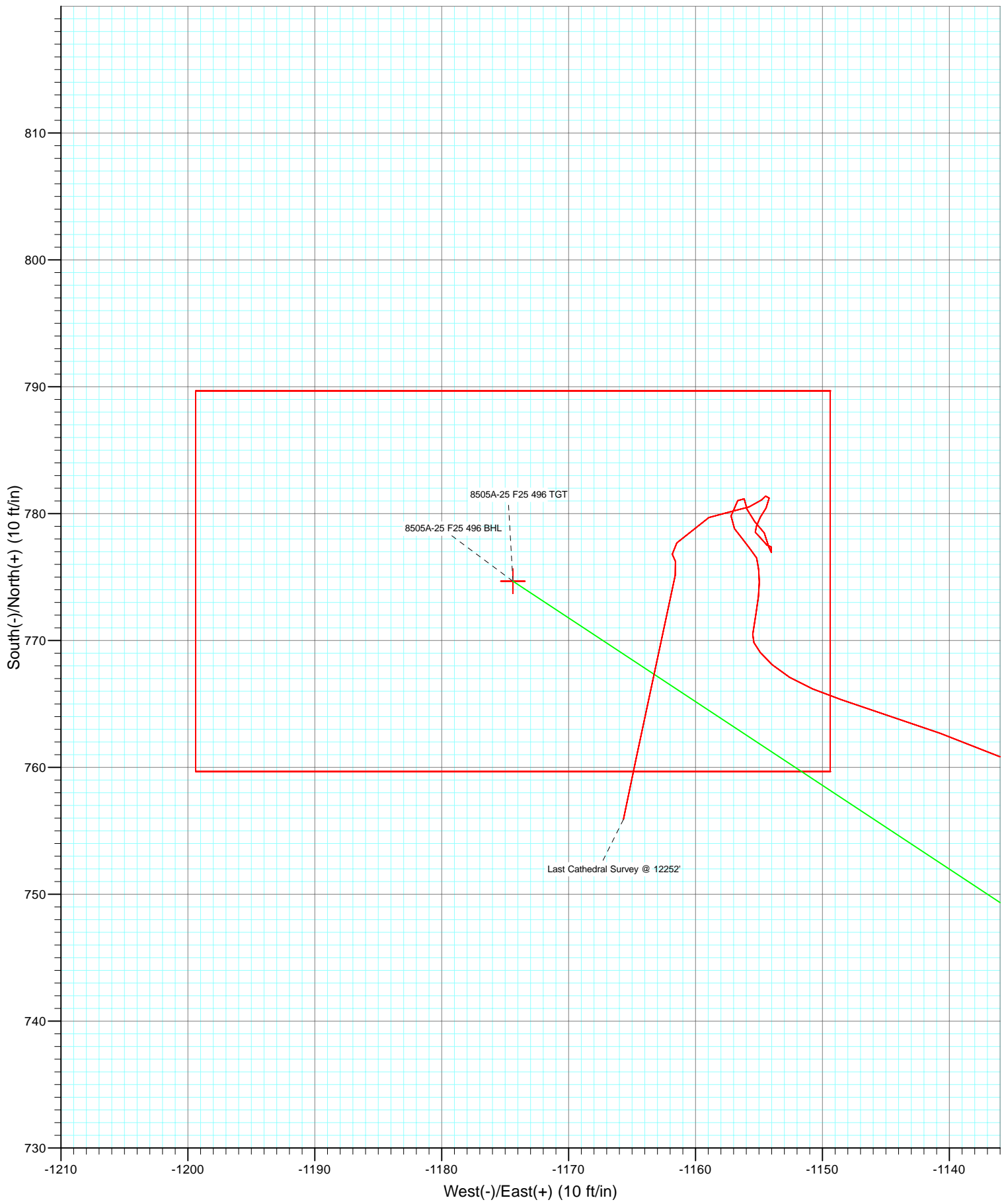
Magnetic Field  
 Strength: 52414.4snT  
 Dip Angle: 65.89°  
 Date: 6/10/2010  
 Model: IGRF2010

DESIGN DETAILS: DD  
 Job #105133, 105246: KR  
 KBE @ 8320.0ft (Patterson 306)

Target	Azimuth	Origin	N/S	E/W	From TVD
8505A-25 F25 496 BHL	303.41	Slot	0.0	0.0	0.0



Project: Story Gulch  
Site: F25 496  
Well: 8505A-25 F25 496  
Wellbore: DD  
Design: DD



# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8505A-25 F25 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8320.0ft (Patterson 306)
<b>Site:</b>	F25 496	<b>MD Reference:</b>	KBE @ 8320.0ft (Patterson 306)
<b>Well:</b>	8505A-25 F25 496	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB

<b>Project</b>	Story Gulch		
<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 Central Zone		

Site		F25 496			
Site Position:		Northing:	1,681,091.06 ft	Latitude:	39° 40' 27.10 N
From:	Lat/Long	Easting:	2,262,632.54 ft	Longitude:	108° 7' 11.76 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.65 °

Well	8505A-25 F25 496					
Well Position	+N/-S	0.0 ft	Northing:	1,681,095.10 ft	Latitude:	39° 40' 27.14 N
	+E/-W	0.0 ft	Easting:	2,262,639.36 ft	Longitude:	108° 7' 11.67 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,298.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	6/10/2010	10.56	65.89	52,414

<b>Design</b>	DD				
<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	303.41	

<b>Survey Program</b>	<b>Date</b>	8/24/2010			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
174.0	12,252.0	Survey #1 (DD)	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		
174.0	1.50	323.60	174.0	1.8	-1.4	2.1	0.86	0.86		
205.0	1.90	312.00	205.0	2.5	-2.0	3.0	1.70	1.29		
235.0	2.50	306.20	234.9	3.2	-2.9	4.2	2.13	2.00		
266.0	3.10	310.90	265.9	4.2	-4.1	5.7	2.07	1.94		
297.0	3.80	308.80	296.9	5.4	-5.5	7.5	2.29	2.26		
328.0	4.70	302.90	327.8	6.7	-7.4	9.8	3.22	2.90		
359.0	5.30	303.50	358.6	8.2	-9.6	12.5	1.94	1.94		
389.0	5.80	297.90	388.5	9.7	-12.1	15.4	2.46	1.67		
420.0	6.80	300.80	419.3	11.3	-15.1	18.8	3.38	3.23		
451.0	7.70	304.10	450.1	13.4	-18.4	22.7	3.20	2.90		
482.0	8.70	302.90	480.8	15.9	-22.1	27.1	3.27	3.23		
574.0	11.40	307.00	571.3	25.1	-35.2	43.2	3.03	2.93		

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8505A-25 F25 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8320.0ft (Patterson 306)
<b>Site:</b>	F25 496	<b>MD Reference:</b>	KBE @ 8320.0ft (Patterson 306)
<b>Well:</b>	8505A-25 F25 496	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	EDM 5000.1 US 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
664.0	12.20	308.30	659.4	36.4	-49.7	61.5	0.94	0.89	
789.0	12.30	309.00	781.6	52.9	-70.4	87.9	0.14	0.08	
884.0	13.10	301.60	874.3	64.9	-87.5	108.8	1.91	0.84	
979.0	13.70	299.20	966.7	76.1	-106.5	130.8	0.86	0.63	
1,075.0	13.20	300.80	1,060.0	87.2	-125.8	153.0	0.65	-0.52	
1,170.0	12.00	300.40	1,152.8	97.8	-143.6	173.7	1.27	-1.26	
1,264.0	10.80	299.90	1,244.9	107.1	-159.7	192.3	1.28	-1.28	
1,359.0	11.50	303.80	1,338.1	116.8	-175.3	210.6	1.08	0.74	
1,454.0	11.60	303.90	1,431.2	127.4	-191.1	229.7	0.11	0.11	
1,548.0	10.40	303.40	1,523.5	137.4	-206.0	247.6	1.28	-1.28	
1,643.0	9.80	302.30	1,617.0	146.4	-220.0	264.3	0.66	-0.63	
1,739.0	8.70	299.30	1,711.7	154.3	-233.2	279.7	1.25	-1.15	
1,834.0	8.50	303.20	1,805.7	161.7	-245.4	293.9	0.65	-0.21	
1,929.0	9.00	306.30	1,899.6	169.9	-257.2	308.3	0.72	0.53	
2,024.0	8.20	305.50	1,993.5	178.3	-268.8	322.5	0.85	-0.84	
2,119.0	8.30	304.00	2,087.5	186.0	-280.0	336.1	0.25	0.11	
2,214.0	8.80	303.70	2,181.5	193.9	-291.7	350.2	0.53	0.53	
2,309.0	7.90	302.70	2,275.4	201.5	-303.2	364.0	0.96	-0.95	
2,405.0	7.60	301.60	2,370.6	208.3	-314.2	377.0	0.35	-0.31	
2,500.0	8.80	301.70	2,464.6	215.5	-325.7	390.5	1.26	1.26	
2,595.0	10.60	301.70	2,558.2	223.9	-339.3	406.5	1.89	1.89	
2,690.0	10.50	303.70	2,651.6	233.3	-354.0	423.9	0.40	-0.11	
2,785.0	9.10	302.00	2,745.2	242.0	-367.5	440.1	1.50	-1.47	
2,880.0	8.20	299.40	2,839.2	249.3	-379.8	454.3	1.03	-0.95	
2,975.0	7.20	300.40	2,933.3	255.7	-390.9	467.1	1.06	-1.05	
3,084.0	6.60	304.40	3,041.5	262.7	-401.9	480.1	0.70	-0.55	
3,176.0	6.10	306.90	3,132.9	268.6	-410.2	490.3	0.62	-0.54	
3,267.0	8.30	312.20	3,223.2	275.9	-418.9	501.6	2.52	2.42	
3,359.0	10.20	312.10	3,314.0	285.8	-429.9	516.2	2.07	2.07	
3,451.0	11.00	306.10	3,404.5	296.5	-443.0	533.1	1.48	0.87	
3,542.0	10.40	304.10	3,493.9	306.2	-456.8	549.9	0.78	-0.66	
3,634.0	11.30	306.50	3,584.2	316.2	-471.0	567.2	1.09	0.98	
3,726.0	9.70	303.10	3,674.7	325.8	-484.7	584.0	1.86	-1.74	
3,817.0	9.60	304.20	3,764.4	334.3	-497.4	599.3	0.23	-0.11	
3,909.0	10.00	306.10	3,855.1	343.3	-510.2	614.9	0.56	0.43	
4,001.0	9.60	301.30	3,945.7	352.0	-523.2	630.5	0.99	-0.43	
4,092.0	9.30	301.00	4,035.5	359.7	-536.0	645.5	0.33	-0.33	
4,184.0	10.80	308.60	4,126.1	368.9	-549.1	661.5	2.17	1.63	
4,276.0	10.90	305.20	4,216.4	379.3	-562.9	678.8	0.70	0.11	
4,367.0	11.20	301.70	4,305.7	388.9	-577.5	696.2	0.81	0.33	
4,459.0	12.20	302.40	4,395.8	398.8	-593.3	714.9	1.10	1.09	
4,551.0	11.30	298.40	4,485.9	408.3	-609.4	733.6	1.32	-0.98	
4,642.0	11.20	302.00	4,575.2	417.2	-624.8	751.3	0.78	-0.11	
4,734.0	11.30	305.90	4,665.4	427.2	-639.7	769.2	0.83	0.11	
4,826.0	11.40	308.90	4,755.6	438.2	-654.0	787.3	0.65	0.11	
4,918.0	12.20	304.90	4,845.6	449.5	-669.1	806.0	1.24	0.87	
5,009.0	11.20	301.70	4,934.8	459.7	-684.5	824.5	1.31	-1.10	
5,101.0	11.60	305.60	5,024.9	469.7	-699.6	842.7	0.94	0.43	
5,193.0	10.20	303.20	5,115.3	479.6	-713.9	860.0	1.60	-1.52	
5,284.0	10.80	308.60	5,204.8	489.3	-727.4	876.6	1.27	0.66	
5,376.0	11.40	310.50	5,295.0	500.6	-741.0	894.2	0.76	0.65	
5,468.0	10.20	307.70	5,385.4	511.5	-754.4	911.3	1.42	-1.30	
5,559.0	9.30	305.80	5,475.1	520.7	-766.7	926.7	1.05	-0.99	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8505A-25 F25 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8320.0ft (Patterson 306)
<b>Site:</b>	F25 496	<b>MD Reference:</b>	KBE @ 8320.0ft (Patterson 306)
<b>Well:</b>	8505A-25 F25 496	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	EDM 5000.1 US 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
5,651.0	10.20	303.00	5,565.8	529.5	-779.6	942.3	1.11	0.98	
5,743.0	9.50	301.10	5,656.4	537.9	-792.9	958.0	0.84	-0.76	
5,835.0	8.80	295.20	5,747.2	544.8	-805.8	972.6	1.27	-0.76	
5,926.0	9.50	303.80	5,837.1	551.9	-818.3	987.0	1.69	0.77	
6,018.0	10.00	304.20	5,927.8	560.6	-831.2	1,002.6	0.55	0.54	
6,110.0	10.60	305.30	6,018.3	570.0	-844.7	1,019.0	0.69	0.65	
6,201.0	9.80	304.70	6,107.8	579.3	-857.9	1,035.1	0.89	-0.88	
6,293.0	10.50	305.20	6,198.4	588.5	-871.2	1,051.3	0.77	0.76	
6,385.0	9.30	303.70	6,289.0	597.5	-884.3	1,067.1	1.33	-1.30	
6,476.0	9.40	305.70	6,378.8	605.9	-896.4	1,081.9	0.37	0.11	
6,568.0	9.20	302.40	6,469.6	614.2	-908.7	1,096.8	0.62	-0.22	
6,660.0	11.10	302.30	6,560.2	622.9	-922.4	1,113.0	2.07	2.07	
6,751.0	9.80	299.40	6,649.6	631.4	-936.6	1,129.5	1.54	-1.43	
6,843.0	10.50	300.70	6,740.2	639.5	-950.6	1,145.6	0.80	0.76	
6,935.0	11.00	302.90	6,830.6	648.6	-965.2	1,162.8	0.70	0.54	
7,027.0	9.90	298.10	6,921.1	657.1	-979.5	1,179.5	1.52	-1.20	
7,118.0	11.10	307.30	7,010.5	666.1	-993.4	1,196.0	2.26	1.32	
7,210.0	10.60	305.30	7,100.9	676.3	-1,007.3	1,213.3	0.68	-0.54	
7,302.0	9.60	304.00	7,191.5	685.5	-1,020.6	1,229.4	1.11	-1.09	
7,394.0	10.40	309.30	7,282.1	695.0	-1,033.4	1,245.3	1.32	0.87	
7,485.0	10.00	307.20	7,371.6	705.0	-1,046.0	1,261.4	0.60	-0.44	
7,577.0	9.50	305.70	7,462.3	714.3	-1,058.6	1,276.9	0.61	-0.54	
7,669.0	9.00	304.80	7,553.1	722.8	-1,070.6	1,291.7	0.57	-0.54	
7,761.0	8.40	303.80	7,644.1	730.7	-1,082.1	1,305.6	0.67	-0.65	
7,852.0	8.40	303.30	7,734.1	738.0	-1,093.2	1,318.9	0.08	0.00	
7,944.0	7.40	298.80	7,825.2	744.6	-1,104.0	1,331.6	1.28	-1.09	
8,036.0	7.00	299.40	7,916.5	750.2	-1,114.1	1,343.1	0.44	-0.43	
8,127.0	6.50	297.00	8,006.9	755.2	-1,123.5	1,353.7	0.63	-0.55	
8,219.0	5.80	293.40	8,098.3	759.4	-1,132.4	1,363.5	0.87	-0.76	
8,311.0	5.30	289.40	8,189.9	762.7	-1,140.7	1,372.2	0.69	-0.54	
8,403.0	5.00	288.10	8,281.5	765.3	-1,148.5	1,380.2	0.35	-0.33	
8,493.0	2.90	311.90	8,371.3	768.1	-1,153.9	1,386.2	2.91	-2.33	
8,584.0	1.10	11.40	8,462.3	770.5	-1,155.5	1,388.8	2.78	-1.98	
8,676.0	1.00	6.50	8,554.2	772.1	-1,155.2	1,389.5	0.15	-0.11	
8,768.0	0.70	10.00	8,646.2	773.5	-1,155.0	1,390.1	0.33	-0.33	
8,860.0	0.70	357.00	8,738.2	774.6	-1,155.0	1,390.6	0.17	0.00	
8,951.0	0.50	357.50	8,829.2	775.6	-1,155.0	1,391.2	0.22	-0.22	
9,043.0	0.70	344.50	8,921.2	776.5	-1,155.2	1,391.9	0.26	0.22	
9,135.0	0.50	294.90	9,013.2	777.2	-1,155.7	1,392.7	0.58	-0.22	
9,227.0	0.80	339.90	9,105.2	778.0	-1,156.3	1,393.6	0.62	0.33	
9,319.0	0.60	297.90	9,197.2	778.8	-1,156.9	1,394.6	0.58	-0.22	
9,410.0	1.00	11.10	9,288.2	779.8	-1,157.2	1,395.4	1.11	0.44	
9,502.0	0.70	41.20	9,380.2	781.0	-1,156.7	1,395.6	0.57	-0.33	
9,594.0	0.40	153.60	9,472.2	781.2	-1,156.2	1,395.2	1.01	-0.33	
9,685.0	0.70	171.10	9,563.2	780.3	-1,155.9	1,394.6	0.37	0.33	
9,777.0	0.80	128.50	9,655.2	779.4	-1,155.3	1,393.6	0.60	0.11	
9,869.0	0.70	152.30	9,747.2	778.5	-1,154.6	1,392.4	0.35	-0.11	
9,961.0	0.80	170.60	9,839.1	777.3	-1,154.2	1,391.5	0.28	0.11	
10,052.0	0.30	20.80	9,930.1	776.9	-1,154.0	1,391.1	1.18	-0.55	
10,144.0	0.30	335.20	10,022.1	777.4	-1,154.0	1,391.4	0.25	0.00	
10,236.0	0.30	248.70	10,114.1	777.5	-1,154.4	1,391.7	0.45	0.00	
10,327.0	0.80	338.30	10,205.1	778.0	-1,154.8	1,392.4	0.94	0.55	
10,419.0	0.30	250.60	10,297.1	778.5	-1,155.3	1,393.1	0.92	-0.54	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8505A-25 F25 496
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KBE @ 8320.0ft (Patterson 306)
<b>Site:</b>	F25 496	<b>MD Reference:</b>	KBE @ 8320.0ft (Patterson 306)
<b>Well:</b>	8505A-25 F25 496	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	EDM 5000.1 US 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
10,511.0	0.80	29.40	10,389.1	779.0	-1,155.2	1,393.2	1.14	0.54	
10,602.0	0.20	357.60	10,480.1	779.7	-1,154.9	1,393.4	0.70	-0.66	
10,694.0	0.90	39.90	10,572.1	780.4	-1,154.4	1,393.4	0.83	0.76	
10,786.0	0.40	315.50	10,664.1	781.2	-1,154.2	1,393.6	1.03	-0.54	
10,878.0	0.10	212.80	10,756.1	781.4	-1,154.5	1,393.9	0.47	-0.33	
10,969.0	0.50	229.70	10,847.1	781.1	-1,154.8	1,394.1	0.45	0.44	
11,061.0	0.90	247.40	10,939.1	780.5	-1,155.8	1,394.6	0.49	0.43	
11,153.0	1.10	261.70	11,031.1	780.1	-1,157.3	1,395.6	0.35	0.22	
11,245.0	1.00	248.40	11,123.1	779.7	-1,158.9	1,396.8	0.29	-0.11	
11,428.0	1.10	216.10	11,306.1	777.7	-1,161.5	1,397.8	0.32	0.05	
11,520.0	0.30	137.80	11,398.0	776.8	-1,161.8	1,397.6	1.17	-0.87	
11,611.0	0.50	167.00	11,489.0	776.2	-1,161.6	1,397.0	0.31	0.22	
11,702.0	0.90	189.00	11,580.0	775.1	-1,161.6	1,396.5	0.52	0.44	
12,160.0	2.80	193.00	12,037.8	760.7	-1,164.7	1,391.1	0.42	0.41	
12,252.0	3.30	190.80	12,129.6	755.9	-1,165.7	1,389.3	0.56	0.54	Last Cathedral Survey @ 12252'

### Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
8505A-25 F25 496 BHL	0.00	0.00	12,120.0	774.7	-1,174.4	1,681,903.32	2,261,487.80	39° 40' 34.80 N	108° 7' 26.69 W
- survey misses target center by 20.2ft at 12241.5ft MD (12119.1 TVD, 756.5 N, -1165.6 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									
8505A-25 F25 496 TGT	0.00	0.00	8,460.0	774.7	-1,174.4	1,681,903.32	2,261,487.80	39° 40' 34.80 N	108° 7' 26.69 W
- survey misses target center by 19.4ft at 8582.2ft MD (8460.4 TVD, 770.4 N, -1155.5 E)									
- Point									

### Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
12,252.0	12,129.6	755.9	-1,165.7	Last Cathedral Survey @ 12252'

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