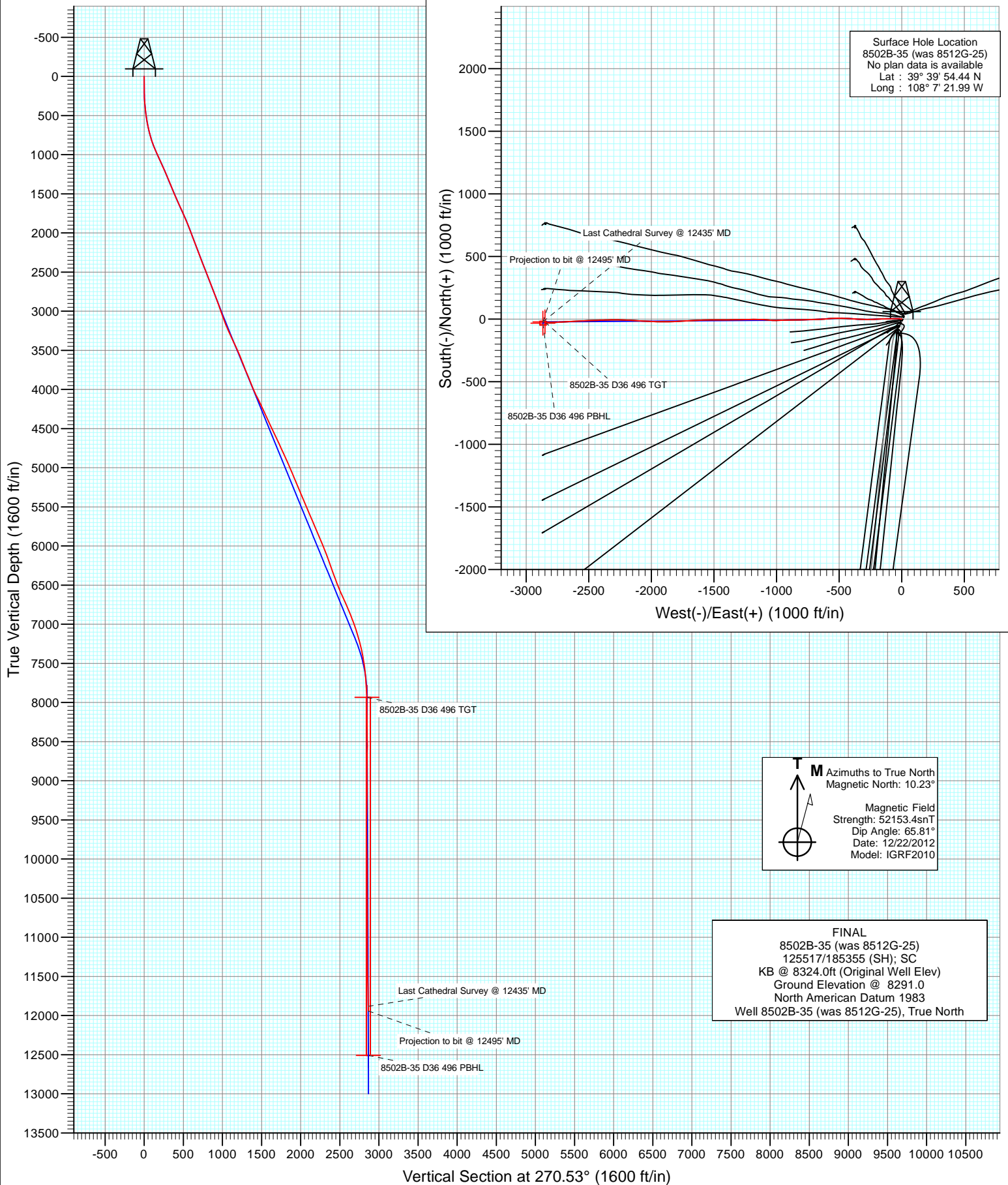


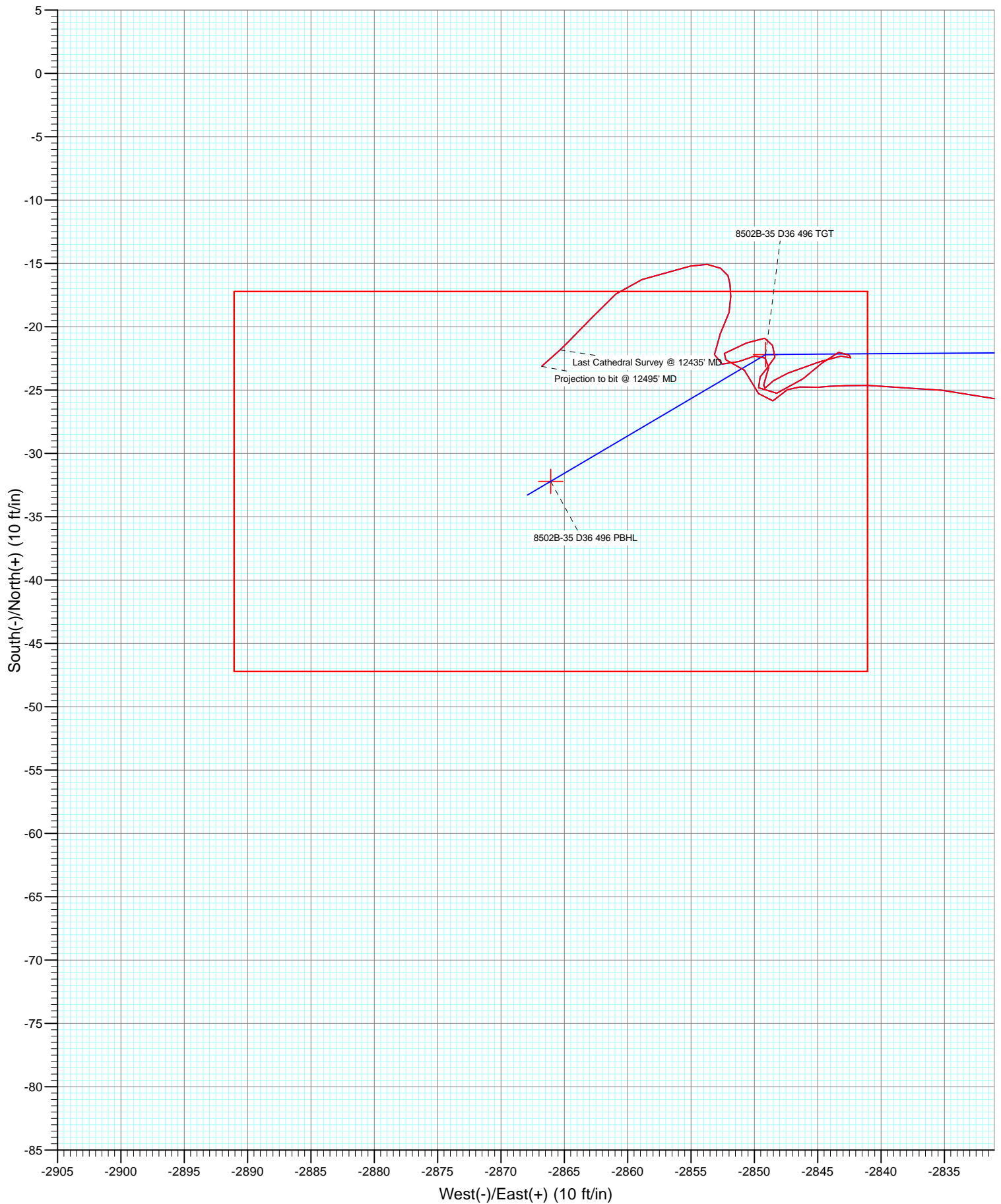


Project: Story Gulch  
Site: S36-T4S-R96W (D36 496)  
Well: 8502B-35 (was 8512G-25)  
Wellbore: OH  
Design: FINAL





Project: Story Gulch  
Site: S36-T4S-R96W (D36 496)  
Well: 8502B-35 (was 8512G-25)  
Wellbore: OH  
Design: FINAL



# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8502B-35 (was 8512G-25)
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KB @ 8324.0ft (Original Well Elev)
<b>Site:</b>	S36-T4S-R96W (D36 496)	<b>MD Reference:</b>	KB @ 8324.0ft (Original Well Elev)
<b>Well:</b>	8502B-35 (was 8512G-25)	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 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		S36-T4S-R96W (D36 496)			
Site Position:		Northing:	1,677,701.75 ft	Latitude:	39° 39' 53.35 N
From:	Lat/Long	Easting:	2,261,687.16 ft	Longitude:	108° 7' 22.59 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.65 °

Well	8502B-35 (was 8512G-25)					
Well Position	+N-S	0.0 ft	Northing:	1,677,810.62 ft	Latitude:	39° 39' 54.44 N
	+E-W	0.0 ft	Easting:	2,261,737.25 ft	Longitude:	108° 7' 21.99 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,291.0 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	12/22/2012	10.23	65.81	52,153

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	270.53

<b>Survey Program</b>	<b>Date</b>	1/1/2013			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
178.0	12,495.0	Survey #1 (OH)	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	
178.0	0.90	268.70	178.0	0.0	-1.4	1.4	0.51	0.51	
208.0	1.20	277.90	208.0	0.0	-1.9	1.9	1.14	1.00	
238.0	1.50	276.00	238.0	0.1	-2.6	2.6	1.01	1.00	
268.0	2.30	280.40	268.0	0.2	-3.6	3.6	2.71	2.67	
299.0	3.30	287.00	298.9	0.6	-5.1	5.1	3.38	3.23	
329.0	4.00	283.50	328.9	1.1	-6.9	6.9	2.45	2.33	
359.0	4.50	281.60	358.8	1.6	-9.1	9.1	1.73	1.67	
390.0	5.30	281.30	389.7	2.1	-11.7	11.7	2.58	2.58	
420.0	5.90	279.80	419.5	2.6	-14.6	14.6	2.06	2.00	
450.0	6.70	276.90	449.3	3.1	-17.8	17.9	2.87	2.67	
481.0	7.40	268.80	480.1	3.3	-21.6	21.7	3.92	2.26	
511.0	8.00	270.60	509.8	3.3	-25.6	25.7	2.16	2.00	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8502B-35 (was 8512G-25)
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KB @ 8324.0ft (Original Well Elev)
<b>Site:</b>	S36-T4S-R96W (D36 496)	<b>MD Reference:</b>	KB @ 8324.0ft (Original Well Elev)
<b>Well:</b>	8502B-35 (was 8512G-25)	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<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
559.0	9.40	271.40	557.3	3.4	-32.9	32.9	2.93	2.92	
605.0	10.70	270.70	602.6	3.6	-40.9	41.0	2.84	2.83	
651.0	12.00	265.30	647.7	3.2	-50.0	50.0	3.65	2.83	
697.0	13.70	267.90	692.5	2.6	-60.2	60.2	3.90	3.70	
743.0	15.30	269.70	737.1	2.4	-71.7	71.7	3.61	3.48	
789.0	16.80	269.50	781.3	2.3	-84.4	84.4	3.26	3.26	
834.0	18.40	269.50	824.2	2.2	-98.0	98.0	3.56	3.56	
880.0	20.20	269.30	867.6	2.0	-113.2	113.2	3.92	3.91	
972.0	23.70	268.20	952.9	1.2	-147.6	147.6	3.83	3.80	
1,064.0	25.20	268.20	1,036.6	0.1	-185.7	185.6	1.63	1.63	
1,155.0	24.30	266.90	1,119.3	-1.6	-223.7	223.7	1.16	-0.99	
1,247.0	23.80	269.80	1,203.3	-2.7	-261.2	261.1	1.39	-0.54	
1,339.0	22.40	270.20	1,287.9	-2.7	-297.3	297.2	1.53	-1.52	
1,430.0	22.10	271.80	1,372.1	-2.1	-331.7	331.7	0.74	-0.33	
1,522.0	22.80	275.00	1,457.2	0.0	-366.8	366.8	1.53	0.76	
1,614.0	23.50	274.60	1,541.8	3.1	-402.8	402.8	0.78	0.76	
1,705.0	24.40	273.30	1,624.9	5.6	-439.7	439.7	1.15	0.99	
1,797.0	24.70	271.10	1,708.6	7.1	-477.9	477.9	1.05	0.33	
1,889.0	24.00	267.90	1,792.4	6.7	-515.8	515.8	1.62	-0.76	
1,980.0	22.20	266.90	1,876.1	5.1	-551.4	551.5	2.02	-1.98	
2,072.0	21.00	266.30	1,961.7	3.1	-585.2	585.3	1.33	-1.30	
2,163.0	20.60	265.10	2,046.7	0.7	-617.5	617.5	0.64	-0.44	
2,254.0	20.60	266.90	2,131.9	-1.5	-649.4	649.4	0.70	0.00	
2,346.0	20.70	268.20	2,218.0	-2.9	-681.8	681.8	0.51	0.11	
2,437.0	21.40	268.30	2,302.9	-3.9	-714.5	714.4	0.77	0.77	
2,529.0	21.30	268.30	2,388.6	-4.9	-748.0	747.9	0.11	-0.11	
2,621.0	21.20	269.00	2,474.4	-5.7	-781.3	781.2	0.30	-0.11	
2,712.0	21.10	268.90	2,559.2	-6.3	-814.1	814.0	0.12	-0.11	
2,804.0	21.30	269.80	2,645.0	-6.7	-847.4	847.3	0.42	0.22	
2,895.0	21.30	270.00	2,729.8	-6.7	-880.5	880.4	0.08	0.00	
2,988.0	20.50	268.30	2,816.7	-7.2	-913.6	913.5	1.08	-0.86	
3,076.0	19.60	266.10	2,899.3	-8.7	-943.8	943.6	1.33	-1.02	
3,168.0	20.60	267.50	2,985.7	-10.4	-975.3	975.2	1.21	1.09	
3,259.0	18.20	271.40	3,071.6	-10.8	-1,005.5	1,005.4	3.00	-2.64	
3,350.0	22.00	274.30	3,157.0	-9.1	-1,036.7	1,036.6	4.32	4.18	
3,442.0	24.40	274.70	3,241.6	-6.3	-1,072.9	1,072.8	2.61	2.61	
3,533.0	25.60	272.20	3,324.0	-4.0	-1,111.2	1,111.2	1.76	1.32	
3,624.0	24.10	270.60	3,406.6	-3.1	-1,149.5	1,149.4	1.81	-1.65	
3,715.0	25.30	270.00	3,489.3	-2.9	-1,187.5	1,187.4	1.35	1.32	
3,807.0	22.10	268.50	3,573.5	-3.3	-1,224.5	1,224.4	3.54	-3.48	
3,898.0	20.90	268.30	3,658.2	-4.2	-1,257.8	1,257.7	1.32	-1.32	
3,990.0	22.80	270.50	3,743.6	-4.6	-1,292.0	1,291.9	2.25	2.07	
4,081.0	21.80	269.40	3,827.8	-4.6	-1,326.6	1,326.5	1.19	-1.10	
4,172.0	21.30	267.40	3,912.4	-5.5	-1,360.0	1,359.9	0.98	-0.55	
4,264.0	24.50	269.30	3,997.1	-6.5	-1,395.8	1,395.6	3.57	3.48	
4,355.0	26.40	270.50	4,079.3	-6.6	-1,434.9	1,434.7	2.16	2.09	
4,447.0	24.70	270.00	4,162.3	-6.4	-1,474.5	1,474.4	1.86	-1.85	
4,538.0	26.00	269.20	4,244.6	-6.7	-1,513.5	1,513.4	1.48	1.43	
4,630.0	24.50	268.80	4,327.8	-7.3	-1,552.7	1,552.6	1.64	-1.63	
4,721.0	24.80	268.80	4,410.5	-8.1	-1,590.7	1,590.5	0.33	0.33	
4,813.0	25.90	267.60	4,493.6	-9.4	-1,630.0	1,629.9	1.32	1.20	
4,904.0	24.40	267.20	4,576.0	-11.1	-1,668.7	1,668.5	1.66	-1.65	
4,996.0	26.10	266.00	4,659.2	-13.5	-1,707.8	1,707.6	1.93	1.85	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8502B-35 (was 8512G-25)
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KB @ 8324.0ft (Original Well Elev)
<b>Site:</b>	S36-T4S-R96W (D36 496)	<b>MD Reference:</b>	KB @ 8324.0ft (Original Well Elev)
<b>Well:</b>	8502B-35 (was 8512G-25)	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<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
5,087.0	24.30	267.70	4,741.5	-15.6	-1,746.5	1,746.3	2.13	-1.98	
5,178.0	24.30	266.50	4,824.5	-17.5	-1,783.9	1,783.7	0.54	0.00	
5,270.0	24.90	268.80	4,908.1	-19.1	-1,822.2	1,821.9	1.23	0.65	
5,361.0	22.80	267.90	4,991.3	-20.1	-1,859.0	1,858.7	2.34	-2.31	
5,452.0	23.70	270.90	5,074.9	-20.5	-1,894.9	1,894.6	1.63	0.99	
5,544.0	22.10	269.70	5,159.7	-20.3	-1,930.7	1,930.4	1.81	-1.74	
5,634.0	23.50	271.50	5,242.7	-19.9	-1,965.5	1,965.3	1.74	1.56	
5,726.0	21.70	271.40	5,327.6	-19.0	-2,000.9	2,000.6	1.96	-1.96	
5,817.0	24.00	274.30	5,411.4	-17.2	-2,036.2	2,035.9	2.81	2.53	
5,909.0	22.80	272.40	5,495.9	-15.1	-2,072.6	2,072.4	1.54	-1.30	
6,000.0	22.90	274.90	5,579.7	-12.8	-2,107.9	2,107.7	1.07	0.11	
6,092.0	22.80	272.90	5,664.5	-10.4	-2,143.5	2,143.3	0.85	-0.11	
6,183.0	23.20	271.70	5,748.3	-9.0	-2,179.0	2,178.9	0.68	0.44	
6,274.0	24.10	271.90	5,831.6	-7.8	-2,215.5	2,215.4	0.99	0.99	
6,365.0	21.70	270.60	5,915.5	-7.0	-2,250.9	2,250.8	2.70	-2.64	
6,457.0	23.00	269.90	6,000.6	-6.9	-2,285.9	2,285.7	1.44	1.41	
6,548.0	20.90	270.00	6,085.0	-6.9	-2,319.9	2,319.8	2.31	-2.31	
6,639.0	20.20	269.00	6,170.2	-7.2	-2,351.9	2,351.7	0.86	-0.77	
6,730.0	19.30	267.70	6,255.8	-8.1	-2,382.6	2,382.4	1.10	-0.99	
6,822.0	19.60	268.90	6,342.6	-9.0	-2,413.2	2,413.0	0.54	0.33	
6,913.0	21.30	266.90	6,427.8	-10.1	-2,445.0	2,444.8	2.02	1.87	
7,005.0	21.60	268.10	6,513.5	-11.6	-2,478.6	2,478.4	0.58	0.33	
7,096.0	23.20	267.80	6,597.6	-12.9	-2,513.3	2,513.0	1.76	1.76	
7,187.0	25.20	268.10	6,680.6	-14.2	-2,550.5	2,550.3	2.20	2.20	
7,278.0	23.90	267.00	6,763.4	-15.8	-2,588.3	2,588.0	1.51	-1.43	
7,370.0	22.50	266.50	6,847.9	-17.8	-2,624.5	2,624.2	1.54	-1.52	
7,461.0	20.70	266.50	6,932.5	-19.9	-2,657.9	2,657.6	1.98	-1.98	
7,552.0	19.70	265.50	7,017.9	-22.1	-2,689.3	2,688.9	1.16	-1.10	
7,644.0	17.80	268.70	7,105.1	-23.6	-2,718.8	2,718.5	2.35	-2.07	
7,735.0	14.80	267.60	7,192.4	-24.4	-2,744.3	2,744.0	3.31	-3.30	
7,827.0	14.20	266.20	7,281.5	-25.7	-2,767.3	2,767.0	0.76	-0.65	
7,919.0	11.60	268.00	7,371.1	-26.7	-2,787.8	2,787.4	2.86	-2.83	
8,010.0	9.10	268.30	7,460.6	-27.3	-2,804.2	2,803.8	2.75	-2.75	
8,102.0	7.30	272.20	7,551.7	-27.2	-2,817.3	2,816.9	2.05	-1.96	
8,193.0	5.90	280.00	7,642.1	-26.2	-2,827.7	2,827.3	1.82	-1.54	
8,284.0	3.70	277.50	7,732.8	-25.0	-2,835.2	2,834.8	2.43	-2.42	
8,376.0	3.60	270.00	7,824.6	-24.6	-2,841.0	2,840.7	0.53	-0.11	
8,468.0	1.30	262.00	7,916.5	-24.8	-2,844.9	2,844.6	2.52	-2.50	
8,560.0	0.60	290.10	8,008.5	-24.8	-2,846.4	2,846.1	0.89	-0.76	
8,652.0	0.80	234.50	8,100.5	-25.0	-2,847.4	2,847.0	0.74	0.22	
8,744.0	1.00	230.70	8,192.5	-25.8	-2,848.5	2,848.2	0.23	0.22	
8,835.0	1.50	334.50	8,283.4	-25.3	-2,849.7	2,849.3	2.19	0.55	
8,927.0	1.20	321.20	8,375.4	-23.4	-2,850.8	2,850.4	0.47	-0.33	
9,018.0	1.10	275.60	8,466.4	-22.6	-2,852.2	2,851.9	0.98	-0.11	
9,110.0	1.10	61.60	8,558.4	-22.1	-2,852.4	2,852.0	2.29	0.00	
9,202.0	1.30	67.40	8,650.4	-21.3	-2,850.6	2,850.3	0.25	0.22	
9,293.0	0.60	93.00	8,741.3	-20.9	-2,849.2	2,848.9	0.88	-0.77	
9,385.0	0.70	165.10	8,833.3	-21.5	-2,848.6	2,848.2	0.84	0.11	
9,476.0	0.50	174.40	8,924.3	-22.4	-2,848.4	2,848.0	0.24	-0.22	
9,568.0	1.10	233.10	9,016.3	-23.3	-2,849.0	2,848.7	1.02	0.65	
9,659.0	1.20	174.90	9,107.3	-24.8	-2,849.7	2,849.3	1.23	0.11	
9,751.0	1.80	68.70	9,199.3	-25.2	-2,848.2	2,847.9	2.64	0.65	
9,843.0	1.20	49.40	9,291.3	-24.1	-2,846.1	2,845.8	0.84	-0.65	
9,934.0	1.20	51.60	9,382.2	-22.9	-2,844.7	2,844.3	0.05	0.00	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well 8502B-35 (was 8512G-25)
<b>Project:</b>	Story Gulch	<b>TVD Reference:</b>	KB @ 8324.0ft (Original Well Elev)
<b>Site:</b>	S36-T4S-R96W (D36 496)	<b>MD Reference:</b>	KB @ 8324.0ft (Original Well Elev)
<b>Well:</b>	8502B-35 (was 8512G-25)	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<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
10,026.0	0.80	64.80	9,474.2	-22.0	-2,843.3	2,843.0	0.50	-0.43	
10,118.0	0.70	153.60	9,566.2	-22.2	-2,842.5	2,842.2	1.14	-0.11	
10,210.0	0.40	334.80	9,658.2	-22.5	-2,842.4	2,842.1	1.20	-0.33	
10,302.0	0.80	256.10	9,750.2	-22.3	-2,843.2	2,842.8	0.89	0.43	
10,393.0	1.40	254.90	9,841.2	-22.8	-2,844.8	2,844.5	0.66	0.66	
10,485.0	1.90	246.70	9,933.2	-23.7	-2,847.3	2,847.0	0.60	0.54	
10,577.0	0.90	216.10	10,025.1	-24.8	-2,849.2	2,848.8	1.32	-1.09	
10,668.0	1.10	21.50	10,116.1	-24.6	-2,849.3	2,848.9	2.18	0.22	
10,760.0	0.70	7.00	10,208.1	-23.2	-2,848.9	2,848.5	0.50	-0.43	
10,852.0	0.50	299.60	10,300.1	-22.5	-2,849.1	2,848.8	0.75	-0.22	
10,943.0	0.60	265.60	10,391.1	-22.3	-2,850.0	2,849.6	0.37	0.11	
11,035.0	1.10	243.50	10,483.1	-22.7	-2,851.2	2,850.9	0.64	0.54	
11,126.0	0.70	290.00	10,574.1	-22.9	-2,852.5	2,852.2	0.88	-0.44	
11,218.0	0.70	352.60	10,666.1	-22.2	-2,853.1	2,852.8	0.79	0.00	
11,309.0	1.50	25.90	10,757.1	-20.6	-2,852.7	2,852.4	1.09	0.88	
11,401.0	0.80	15.90	10,849.0	-18.9	-2,852.0	2,851.7	0.79	-0.76	
11,493.0	0.80	356.90	10,941.0	-17.6	-2,851.9	2,851.6	0.29	0.00	
11,584.0	0.40	355.40	11,032.0	-16.7	-2,851.9	2,851.6	0.44	-0.44	
11,676.0	0.50	339.50	11,124.0	-16.0	-2,852.1	2,851.8	0.17	0.11	
11,768.0	0.60	294.60	11,216.0	-15.4	-2,852.7	2,852.4	0.47	0.11	
11,859.0	0.80	280.50	11,307.0	-15.1	-2,853.7	2,853.4	0.29	0.22	
11,951.0	0.90	249.60	11,399.0	-15.2	-2,855.0	2,854.8	0.50	0.11	
12,134.0	1.60	257.30	11,582.0	-16.3	-2,858.9	2,858.6	0.39	0.38	
12,225.0	1.50	223.80	11,672.9	-17.4	-2,860.9	2,860.6	0.99	-0.11	
12,317.0	1.80	226.30	11,764.9	-19.3	-2,862.8	2,862.5	0.34	0.33	
12,409.0	1.70	222.40	11,856.9	-21.3	-2,864.8	2,864.4	0.17	-0.11	
12,435.0	1.80	228.50	11,882.8	-21.8	-2,865.3	2,865.0	0.81	0.38	Last Cathedral Survey @ 12435' MD Projection to bit @ 12495' MD
12,495.0	1.90	228.50	11,942.8	-23.1	-2,866.8	2,866.4	0.17	0.17	

Targets										
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
8502B-35 D36 496 PBH		0.00	0.00	12,508.0	-32.2	-2,866.1	1,677,861.17	2,258,871.45	39° 39' 54.12 N	108° 7' 58.64 W
- survey misses target center by 565.3ft at 12495.0ft MD (11942.8 TVD, -23.1 N, -2866.8 E)										
- Rectangle (sides W30.0 H50.0 D0.0)										
8502B-35 D36 496 TGT		0.00	0.00	7,934.0	-22.2	-2,849.1	1,677,870.68	2,258,888.70	39° 39' 54.22 N	108° 7' 58.42 W
- survey misses target center by 4.6ft at 8485.6ft MD (7934.1 TVD, -24.8 N, -2845.3 E)										
- Point										

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
12,435.0	11,882.8	-21.8	-2,865.3	Last Cathedral Survey @ 12435' MD	
12,495.0	11,942.8	-23.1	-2,866.8	Projection to bit @ 12495' MD	

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